PANAMA

THE CREATION DESTRUCTION AND RESURRECTION

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PHILIPPE
BUNAU-VARILLA

BOMBAY BRANCH

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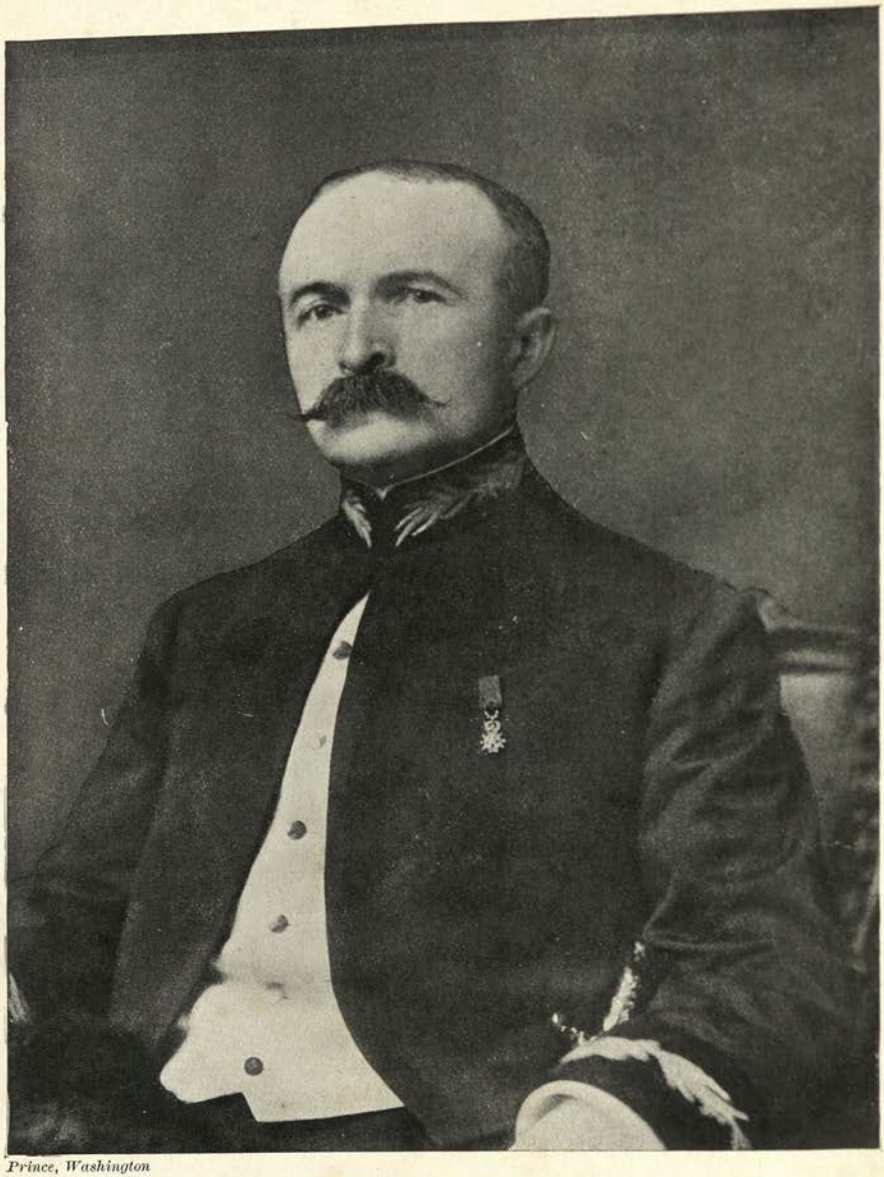

Prince, Washington

PHILIPPE BUNAU-VARILLA

From a photograph taken during his tenure of office as Minister Plenipotentiary of the Republic of Panama.

PANAMA

THE CREATION, DESTRUCTION, AND RESURRECTION. BY PHILIPPE BUNAU-VARILLA

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DEDICATION

TO MY SON

ETIENNE BUNAU-VARILLA

MARÉCHAL DES LOGIS 5TH DRAGOONS

TO MY DAUGHTER

GISELLE BUNAU-VARILLA

My Dear Children,

This book I dedicate to you because it forms the most precious part of what I shall leave to you.

You will find in it the permanent picture of the struggle which from 1884 to 1906 I kept up for the defence and triumph of the greatest moral interest which the French genius has ever had abroad.

The generous soil of our country has given birth to many a noble character and to many a bold conception. No nation can show from the beginnings of history down to our own times a more brilliant succession of heroic actions, a more radiant series of luminous ideas.

But there are always tares among the wheat. The history of Panama is the tragic narrative of the struggle between these two elements.

For a long time the tares triumphed. During a considerable period the mind of the nation was poisoned by calumny grafted on cowardice. It had lost faith in its own resources. It called other countries to proclaim its decadence.

No nation, any more than a man, can live without honour. It needs to materialise its ideals in the form of an absolute faith in a certain number of superior men. Otherwise, no moral life is possible for it. Once calumny has persuaded a nation that she has been deceived in her ideal, that those whom she was wont to admire are only worthy of scorn, a great disaster has befallen her. She is prostrated like a mother who has lost faith in the honour of her sons.

Of such a conspiracy as this our country has been the victim. This is what has made the word "Panama" detestable to her. She should have

seen in it the symbol of all the most generous qualities of her blood : courage, self-denial, and science. Calumny and cowardice convinced her that it was the symbol of every infamy.

To destroy this false and sinister impression it was necessary that the eternal conception of French genius should become a reality. I have restored to the word " Panama " its true significance, and it can now once again be pronounced without causing an attack of hysteria.

To-day France is able to see things as they are; to-day she can discover the full extent, the whole bearings, of her admirable work; the nightmare is over.

To have made this possible is worth the labour of a lifetime. The recollection of this prolonged, unceasing effort for the honour of the country will be a thousand times more precious to you than all the material treasures which I might have acquired and bequeathed to you, had I devoted my activity to selfish ends.

Your whole life will not suffice to witness all the changes which will be caused to humanity by the realisation of this dream of centuries—the creation of the Straits of Panamà.

Some hours employed in the perusal of this book will enable you to realise the battles which had to be fought in order to bring about this great result. They have given a tangible reality to what was for so long a mere figment of the mind, and led once more to triumph the genius of our country.

May this book bring home to you, what I have always striven to impress upon you, that the greatest virtue in a Frenchman is to cultivate truth and to serve France.

PHILIPPE BUNAU-VARILLA.

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PANAMA

THE CREATION—THE DESTRUCTION—THE RESURRECTION

CHAPTER I

POINTS ILLUMINATED BY THIS BOOK

THIS book is a testimony before the tribunal of history. Its aim is to explain how that great conception of French genius, the junction of the Pacific and Atlantic Oceans, was snatched from her; and that the solution of the problem of the opening of a free Strait between the two oceans was her work and hers alone.

THE LOSS OF LOUISIANA AND THE LOSS OF PANAMA

To trace the secret mechanism of this event one must go back a century.

In 1803, Bonaparte, as First Consul, sold to the United States for the sum of $12,000,000 the immense territory of Louisiana.

Before this acquisition the American Republic owned only 827,844 square miles. The area of Louisiana was then 1,171,931 square miles, but she was bound to annex to herself, sooner or later, another 921,916 square miles in her irresistible expansion towards the Pacific. Mexico was too weak to stand in her way.

Why did we thus abandon five-sevenths of the territory held by the United States to-day? Why did we forsake this magnificent colony which Nature had made for the white race, and which we had discovered and fertilised?

We acted thus because England, our implacable enemy at that time, was about to seize Louisiana. We were then powerless on the sea, and could not defend our American Empire.

One hundred and one years later, in 1904, all that we had created

at Panama was sold to America for $40,000,000. It was the same bargain over again.

This time our paralysis was caused not by an enemy from abroad. It was the work of a foe whom we were harbouring in our own midst, and who now thrust this great enterprise into a morass, from which there was no rescue possible.

In the subtlest way this enemy took advantage of the mobile sensitiveness of the French mind, of the readiness of French public opinion, to take alarm at any question of money.

Monstrous accusations were launched. They throve, thanks to the obscurity and complexity of a problem so technical as the construction of the Panama Canal.

The ruin of this vast undertaking was part of an intrigue designed to overthrow the existing form of government.

The men aimed at did nothing to baffle the plan of their adversaries. Had they done their duty they would have fought for Truth and for the nation's interests.

They were actuated by a single predominant idea. They tried to suppress anything that could connect either them or their party, their personal or their party's cause, with the Canal scheme.

To show their absolute independence of it, they joined its enemies, their own enemies, in besmirching the ill-fated undertaking.

Such is the fatal manœuvre which confounded in one conspiracy the spokesmen of all political parties, and which led the whole nation to condemn a noble enterprise.

Foes from within can be as deadly as foes from without. As the fleets of a hostile nation stood between France and Louisiana, so now internal intrigues debarred her from Panama.

As after the sale of Louisiana, so now the United States inherited the undertaking that we had abandoned.

The Vindication of French Genius

It must, however, be admitted that in this second case French genius has been amply justified.

The adoption of the French Panama Canal route by the United States, and their rejection of the American Nicaragua route, has been a conclusive vindication of French science.

Certainly France has lost not only her great property, but also the enormous profits which were bound to accrue.

But the triumph over Nature of the science and the heroism of the French has at last received due recognition.

This undertaking, which was so long thought to be unrealisable, is to-day terminated, or nearly so, by the methods and the plans which

the French mind had conceived, though not by the methods it had finally evolved.

The sentence, "Panama is the greatest swindle of the century!" is now meaningless.

This sentence would have been indelibly preserved in the memory of humanity, and to our everlasting shame, if the Nicaragua Canal had been constructed and if our Canal had consequently been abandoned.

Despite all my efforts, the day came when I felt that I had exhausted every available means of bringing the French to comprehend the real condition of their work and to complete it when two-thirds of it had already been achieved.

From that moment on I devoted myself to the single idea of saving the honour of this great creation by preserving its life.

My efforts brought about the defeat of the Nicaragua project, and its rejection by the nation which had conceived it half a century ago and had cherished it ever since.

My efforts brought about the changes in the political map of Central America.

My efforts brought about the creation of that new Republic of Panama, without which the French enterprise would to-day be dead and forgotten. Thanks to the Republic of Panama, it is on the point of completion.

Like the Greek philosopher who undertook to demonstrate movement by walking, I deemed that nothing short of the opening itself could prove the possibility of a Canal at Panama.

The former enemies of the scheme have changed their tune. Some of them have sought to give vent to their concealed anger by formulating a new thesis.

They have turned on the United States. They have said, "A mere bluff robbed us of Panama. The United States knew its qualities, and the defects of the Nicaragua scheme. Their preference for the Nicaragua solution was but a feint. It was invented simply to form a sham opposition to Panama."

But this time public opinion proved recalcitrant. The transition between the old and the new thesis was too violent.

It sufficed to recall that the idea of Panama was considered in France only after it was rejected in America. After seven years of careful surveys made from 1869 to 1876 the Nicaragua scheme was declared by the American Government superior to that of Panama *from all points of view.*

It was only later on that the idea of constructing the Panama Canal took shape in France.

The Essential Virtue of a Democracy

The object of this book is not to wreak vengeance on certain men. They are protected by the law of negative prescription; they are entitled to the contempt of oblivion. The upshot of the lesson of this book should be to show to the nation and to her leaders that the primary virtue of a democracy is resistance to calumny. The reader of this book will understand how many disasters we would have been spared if this virtue had inspired some of our leading men.

If I succeeded in protecting that portion of the national honour which was linked with the enterprise of Panama it was because I treated calumny with disdain, as I had formerly treated the danger of yellow fever.

May this great lesson of the loss of the Panama enterprise make an impression upon the mind of those who accept the management of any public interest. Let them face the enemy, for thus only will they be able to accomplish their mission. To join the ranks of falsehood is to be a foe to public welfare.

France has already learned to venerate in Jules Ferry a great citizen who was stabbed by calumny. But hitherto she had not had the opportunity of seeing how much money such moral leprosy could cost her.

Such an opportunity is afforded by the case of Panama. The account may be easily calculated. The positive value of the Panama Canal within ten years from to-day, if it had remained in our hands after its completion (in 1892), would be two thousand million dollars.

The future will decide if my calculations are wrong.

But however great may be this loss of money, the loss of honour would have been infinitely greater had Panama been finally abandoned. It will be seen later on by what an almost romantic concurrence of circumstances and of events we were spared this fatal blow.

Before undertaking to relate the acts of this long tragedy I wish first to throw light on certain obscure passages, and so dispel a mass of misunderstanding.

There are many people who still believe in certain of the libels uttered against the great work undertaken by Ferdinand de Lesseps. They are but flotsam beside the flood of former days, but they must be ruthlessly eliminated, if the reader would penetrate into this extraordinary history with a clear notion of the truth.

To those who still believe these falsehoods I recommend a perusal of the Appendix, where they are refuted.

They will then realise the falsity of the assertion that the old Panama Company spent only eighty million dollars in works, and that nobody ever knew what became of the rest of the two hundred and

fifty million dollars borrowed, a sum increased in some versions to three hundred million dollars.

They will then realise the falsity of the assertion that an enormous plant was abandoned without being even put in use.

They will then realise the falsity of the assertion that the administration of the old Company was a record of extravagance and of useless expenditure.

They will then realise the falsity of the assertion that contractors were able to obtain all the profits they desired.

They will then realise the falsity of the assertion that the Panama Canal was begun without preliminary surveys, that obstacles were met with which previous surveys and studies would have revealed.

They will then realise the falsity of the assertion that the French neglected the whole question of sanitation, and that the destiny of the works would have been different if they had attached the same importance to this question as did the Americans.

Until these misconceptions have been abandoned it is useless to proceed further.

I have not, however, thought it worth while to compel such readers as are better informed to wait before lifting the curtain on the drama.

For the former the demonstration of the inanity of these mendacious fictions must be the prologue, and for the latter the epilogue of this history.

Figures symbolising the Results of the Panama Works

It is nevertheless necessary, I believe, to draw momentary attention to certain figures as being authoritative witnesses that cannot be challenged, and that summarise a multitude of facts.

It has been often said and repeated that the French Company recklessly squandered its resources, while every one praises, and rightly so, the precision and the method of the Americans in their systematic organisation of the works.

If it be true that the administration of the old Company was extravagant on the Isthmus, and that disorder and negligence characterised it, it would naturally be expected that the American administration would give much lower salaries than formerly to those placed at the head of the works.

Such a state of things would cause no surprise. Twenty-five years ago those who went to Panama were giving their lives, and the scale of salaries was naturally affected by this fact. Those who go to the Isthmus now run no risks whatever, thanks to the progress of science in the last ten or fifteen years.

But is this the case?

The salary of the first Directeur-Général of the old Company in 1883 was twenty thousand dollars. The figure fixed by President Roosevelt in April 1905 for the salary of the President of the Isthmian Canal Commission was thirty thousand dollars, while to the Chief Engineer was allotted twenty-five thousand dollars! In the old Company both these offices were filled by one and the same man.

If it be true that the administration of the old Company was extravagant on the Isthmus, and that disorder and negligence characterised it, we ought to be able to find some trace of this fact in the amount of General Expenses. The old Company spent under that heading $16,600,000 in 7·71 years, somewhat less, that is, than $2,150,000 a year.

If the item General Expenses were smaller to-day, the reduction would not be surprising. With a more perfect sanitary situation, less money is required. Less employees are necessary, and they may be hired for a smaller sum of money. Moreover, travelling expenses are less between Washington and Panama than between Paris and Panama.

But is this the case?

The American administration reckon for General Expenses on the Isthmus—$2,676,000!

To be sure the nature of General Expenses in the two periods is not entirely identical, owing to the works having been formerly subdivided among many contractors, while to-day they are all in the hands of the United States herself. Many employees formerly hired for the control and supervision of contractors, are now counted as employees attached to the works, and do not go to swell the item of General Expenses. If there were contractors to-day the General Expenses of the actual period would be higher.

On the other hand, there are at present certain items of General Expenses which did not exist formerly. But I will forgo making a detailed comparison. A general view of the respective figures corresponding to the two periods is sufficient to give an idea of the two systems.

If it be true that the administration of the old Company was extravagant on the Isthmus, that disorder and negligence characterised it, we are bound to find a proof of it in the exaggerated number of employees paid by the month as compared with the number of workmen paid by the day. This proportion ought to be much higher in the French period than in the American period if the legend of extravagance is true.

But is this the case?

In January 1886 the total number of white employees on the rolls of the old Company on the Isthmus, receiving their payment monthly, was 670 as against 14,605 for day workmen, that is to say, 4·4 per cent. of the total number of the force : 15,275.

In January 1909—a month midway between the two years of maximum excavation activity during the American period—seven months before the masonry of the locks was begun, we find that 4295 employees, mostly American, were receiving monthly payment, the total number of the force being 24,878, that is to say, 17·2 per cent. instead of 4·4 per cent. in the French period.

If it be true that the administration of the old Company was extravagant on the Isthmus, that disorder and negligence characterised it, it would be natural to believe that the 2265 buildings erected on the Isthmus would have disappeared rapidly both under the influence of the climate and owing to careless construction. It would likewise be natural to conclude that the hospitals would have been badly kept and that the sick were badly cared for.

But is this the case ?

As to the first point let us read what Mr. P. O. Wright says, on behalf of the Service of Architecture, in the *Canal Record* of December 11, 1907 :

" Owing to the good materials and thorough workmanship employed by the French Companies, the greater part of the buildings were in such condition as to warrant repairs even after standing unused for ten or more years.

" The French plans and buildings furnished some valuable features of tropical architecture. These were fully appreciated by the Architectural Department, and were later incorporated in the design of buildings erected by the Commission."

And as to the second point, here is what the *Canal Record* of July 29, 1908, says under the title " Commission Hospital Service " : " Under the old French Company the hospital was well equipped and excellent care was taken of the patients."

If it be true that the administration of the old Company was extravagant on the Isthmus, that disorder and negligence characterised it, we must conclude that blunders were made in the conception and ordering of their plant and that it was lacking in efficiency.

But is this the case ?

After the American Government took possession of the Canal on May 4, 1904, some of our old dredges at Colon and Panama, which had stood idle since 1888, were set to work.

Simultaneously the American Government ordered dredges of the type usually employed in the United States, and considered there as the most perfect and powerful type of dredges. Our old dredges, these remnants of bygone days, were treated with scant consideration. The desire was to get rid of them at any cost. The hull of one of our old dredges, says the *Canal Record* of September 9, 1908, was sunk in deep water on the Pacific side when in perfect condition because *its value was doubtful and it was in the way.* While this was being done marvels were expected from the new dredges, the " modern " dredges.

The result was just the contrary. Such of the old French dredges as were kept at work constantly beat the new-comers, both in amount of cube excavated per day, and in cheapness per cubic yard excavated. Thereupon the old hull sunk in deep water was hastily raised and put into working condition with all the other old French dredges available.

Though the annual reports of the Canal Commission do not contain comparative figures for all the dredging apparatus, such figures are given for the Pacific Division. The maximum monthly excavation registered for the American modern dredge (Dipper) is, in that division, 126,557 cubic yards in 1908–1909; 75,620 cubic yards in 1909–1910; and 83,702 cubic yards in 1910–1911, whereas for the old French dredges (Ladder) the respective figures are 173,477 cubic yards, 147,894 cubic yards, and 219,795 cubic yards.

The cost prices per cubic yard excavated, including the cost of maintenance and repairs, may be found in the annual reports from January 1910 to June 1911.

The average between the unit cost prices given for these three semestres for all the French and American ladder and dipper dredging machines on both sides of the Isthmus is $0·162 per cubic yard for the new American dredges, and $0·115 per cubic yard for the old French dredges belonging to the Panama Company.[1]

A similar fate would have befallen the plant for the dry excavations if the conditions met with in the excavation had been the same as formerly.

If the American engineers had been confronted by the soft, slippery, sliding ground which caused us so much difficulty, the powerful and

[1] I do not mean to say that these old dredges are superior to all the dredges now available.

Enormous progress has been made, but with machines built on the same principle as that of the old French dredges, a principle which, for some unexplainable reason, enjoys little popularity among the American engineers. There are to-day ladder dredges entirely similar to our old French dredges which are three times more powerful and more economical than the dredges of a quarter of a century ago.

The American Government ought to have ordered a number of such machines at the outset, as I persistently recommended. But they did not; they ordered dredges of the American type which proved to be inferior even to the obsolete old French dredges. Finally a dredge of the suitable type was ordered in Scotland, the " Corozal."[2] It arrived on the Isthmus at the end of March 1912, when the works were practically finished.

heavy plant they purchased would have been practically paralysed. The President of the United States, Mr. Roosevelt, implicitly acknowledged this fact in his message of December 17, 1906, when he said of the new American steam-shovels which were substituted for the French machines which had removed all this sticky, slippery ground, both in the dry and in the wet seasons : *In the rainy season the steam shovels can do but little in dirt, but they work steadily in rock, and in the harder ground.*

This admission shows how the steam-shovels would have failed if, like the French, the Americans had had to work for years in the slippery, soft and sliding dirt in a country where the rainy season lasts two-thirds of the year.

If conditions had not been altered by the very works accomplished, by the French; if, in fact, they had not removed the terrible difficulty of the soft dirt with the appropriate dry excavation plant, the American dry excavation plant would have met with the same fate as did the American wet excavation plant.

What the French, moreover, accomplished with their plant was stated in the following terms by the Chief Engineer of the Canal, Mr. Stevens, before the International Consulting Board in 1905. The passage may be found on p. 286 of the Report of this Board :

I cannot conceive how they [the French] *did the work they did with the plant they had.*

Fortunately the soft and sliding ground had been removed, and the new heavy and powerful dry excavation plant, provided by the Americans, could work very well and brought forth results deserving of the highest praise.

If it be true that the administration of the old Company was extravagant on the Isthmus, and that disorder and negligence characterised it, it must be apparent in the quantity of monthly excavation carried out per unit of the force employed, which must necessarily be higher in the American period.

If such were the case the fact would not be very surprising as the French had to work in terrible conditions. Yellow fever and malarial fever decimated their ranks. The sliding and slippery soil of the surface of the Isthmus presented grave obstacles, far more serious than those resulting from the hardness of the rock, a material that can be dealt with by an adequate expenditure of explosives and drilling labour.

Now, is the monthly quantity of excavation made, per unit of men employed on the works during the American period, greatly superior to that of the French period, as might be expected ?

The *Bulletin du Canal Interocéanique*, the official organ of the old

French Company, did not give as a rule the statistics of the employees on the daily or monthly rolls.

For the month of January 1886, however, these statistics were given, on account of the visit made to the Panama works by the Delegates of the Chambers of Commerce of the World. The number of workmen paid per day was 14,605, all black, because the sanitary conditions at the time were such as absolutely to prohibit the use of white labour. Death within three months was the almost certain fate for white labourers in the Canal works. To this figure of the day workmen must be added 670 white employees. The total is, therefore, 15,275 men.

The amount excavated during that month was 1,424,000 cubic yards.[1] It corresponds to a monthly output of ninety-three cubic yards per man employed. During the three years following, the amount of excavation and of *personnel* employed remained about the same, and this figure can be taken as characteristic of the work of the old Company.

Now let us take, since the 4th of May, 1904—that is to say, from the day the American Government undertook the works for the completion of the Canal—the two years presenting the maximum activity of excavation. Let us take also the month of January midway between these two years.

It is the month of January 1909. The excavation works are in full swing, but the masonry work has not yet been undertaken: it will begin on the locks in the following month of August.

Comparison of the month of January 1909 with that of January 1886 will give us a fair basis for comparison.

If, as was so long and often maintained, the French Company was grossly mismanaged, this maladministration, coupled with the incurable sanitary conditions and the extraordinary difficulties of the ground, must have resulted in a great superiority of monthly output per head in January 1909 as compared with January 1886.

But is this the case?

The total number of men employed in January 1909 by the American administration is 24,878, of whom 4913 were European labourers, mostly Spanish, and 4295 were Americans belonging to clerical force, skilled labour, etc. Thanks to the discoveries of science, it is now possible to protect white labour against tropical fevers, a thing which was impossible twenty-five years ago.

As the old Company employed 670 men, mostly French, for clerical and higher field work one may admit that the number of such employees was increased in proportion to the excavation made. The relation

[1] In the conversion of cubic yards into cubic meters and *vice versâ*, I have adopted the practical and very approximate value of 3 cubic meters = 4 cubic yards, and likewise in the matter of money I have reckoned £1 = $5 = Fcs. 25.

between the excavation in January 1909 and January 1886 is 2·05 to 1. It may be admitted consequently that among the 4295 Americans a number equal to 1373 correspond to the 670 of the French period, and that the rest, say 2922, filled positions formerly attributed to black people.

The industrial value, the efficiency of the white labourers, was officially standardised by the *Canal Record* of January 29, 1908, in comparison with the efficiency of the black West Indian labourers.

The ratio between the white and the black labourers was fixed at two to one. The same ratio is the minimum ratio applicable to American employees as compared with the West Indians fulfilling the same duty.

It may be said, therefore, that the sum total of employees in January 1909 was equivalent to more than 32,713 units in the French period.

The volume excavated during the month of January 1909 was 2,924,551 cubic yards, say eighty-nine cubic yards per employee.

Therefore the efficiency of employees measured in excavation made during the American period was not, as would be expected, much higher than in the French period—it was, on the contrary, slightly inferior. It is eighty-nine cubic yards instead of ninety-three in the French period.

The month of January 1909 is, moreover, well chosen for making such a comparison.

Let us make similar calculation for the two complete years between which January 1909 is placed.

Let us take for these calculations the statistics of employees published by the *Canal Record* immediately after the middle of the respective years.

We find that the monthly output per head calculated as we have reckoned it is equal to ninety-two cubic yards in 1908 and eighty-six cubic yards for 1909.

These two years represent the maximum of excavation. The average monthly excavation in 1908 was 3,093,061 cubic yards, and in 1909, 2,924,680 cubic yards. During the preceding year, 1907, the monthly average was 1,313,774 cubic yards, and during the following year, 1910, it was 2,619,806 cubic yards. In 1912 the output remained approximately the same as in 1911.

The monthly figure of eighty-nine cubic yards per unit of labour may, therefore, be admitted as the expression of the average efficiency during the years of maximum excavation of the American period.

It is about five per cent. inferior to the figure of ninety-three cubic yards that we have found as characteristic of the efficiency per man

employed in the French period after reaching its normal conditions of work.[1]

The transformation of the sanitary conditions recently obtained by scientific progress, has, therefore, permitted of the introduction of a larger number of labourers, and of labourers of a better quality, than formerly. As a result, the output has rather more than doubled, but the efficiency per unit has not been increased; it is, on the contrary, slightly diminished, if the relation of qualities officially recognised and rated is taken into consideration.

It follows from these figures that in spite of the almost superhuman difficulties attending the battle against Nature during the French period the results—far from being, as might have been expected, very inferior in relative value to the results of to-day—were equal, if not superior.

Nobody can accuse me of striving by petty considerations to diminish the prestige of the work done by the Americans. Their method and their organisation for its execution deserve admiration if their general plan for the Canal does not.

My object is to prove, by comparison of figures, how cynical was the attack on the old Company, and to make clear at the beginning of this book that if the Americans have every reason to be proud of the manner in which they organised the execution of the Canal, the French may be at least equally proud, for they risked their lives into the bargain.

Work on the Canal in the French period can be compared to the engineering operations conducted during a war under the fire of a fortress. The Canal works to-day are merely those of a vast but regular and normal industry. In spite of this profound modification, the efficiency per unit employee has not been surpassed, perhaps it has perhaps not even been reached.

In insisting on these figures I repeat that I by no means aim at diminishing the respect due to the American achievement.

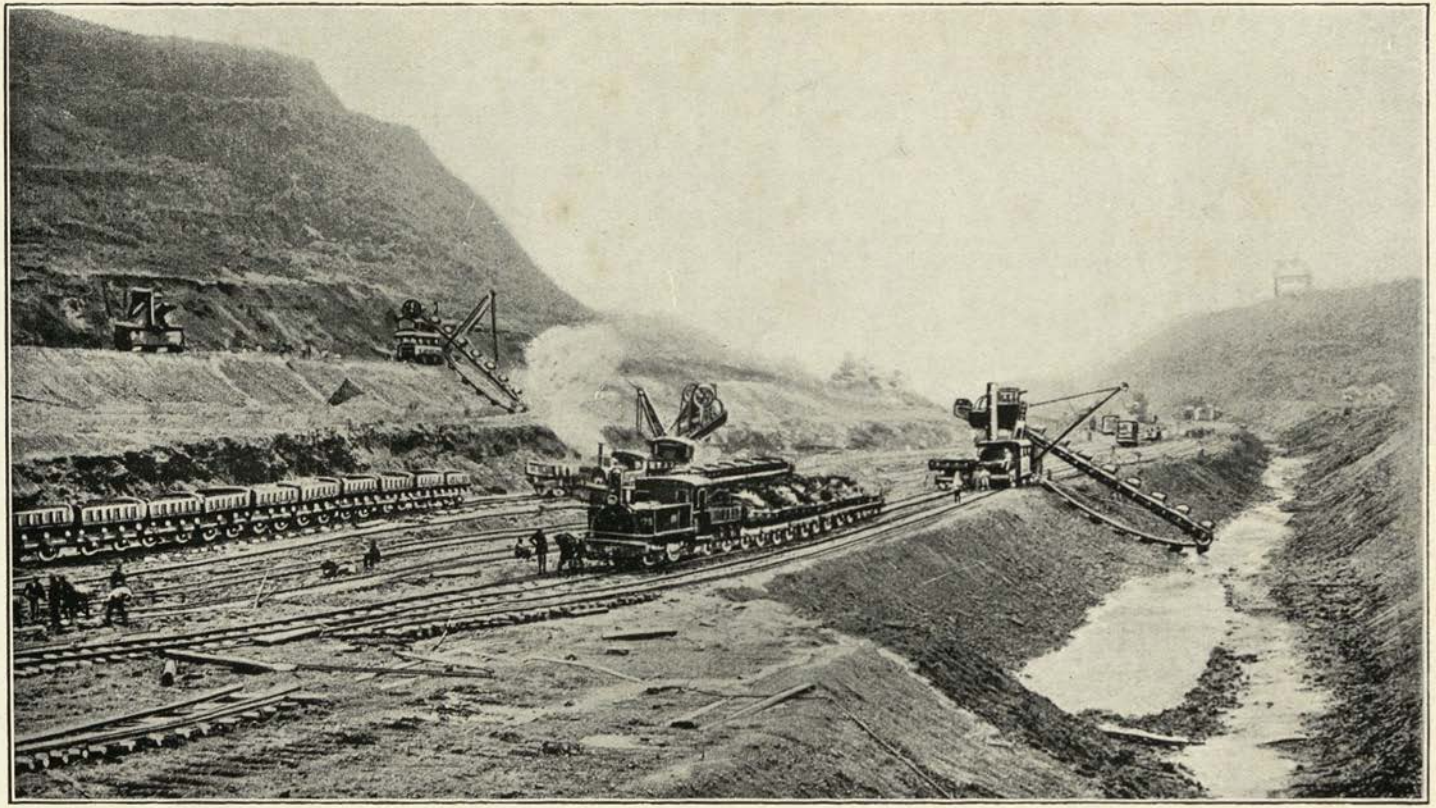
America will receive the meed of glory due to her. Americans will open the Canal to the world.

My sole object is to render justice to those who first tackled the immense problem and who gave their lives to solve it.

This justice is due to the heroic and victorious efforts of Frenchmen ostracised in their own country by political passion, but now vindicated not only by the implicit testimony of *figures*, but also by the explicit testimony of their successors.

[1] It might be objected that the proportion of excavation by dredging compared to the dry excavation is higher by about twelve per cent. in the French period than in the American period, and that dredging requires less labour than excavation in the dry.

It is not the aim of this demonstration to enter into minute details, but to show by general results what was the activity and the efficient management of the French works in spite of the extraordinary obstacles encountered.



THE WORKS AT THE CULEBRA DIVIDE IN 1888

This photograph shows, looking towards Panama, the system employed for the excavation in the dry of the Culebra Cut, by the old Panama Company, presided over by Ferdinand de Lesseps. On the left is the *cerro Culebra*, now named Gold Hill; on the right is the now so-called Contractor's Hill, on the top of which stood the author's house.

In the preamble to his message of December 17, 1906, the President of the United States, Mr. Roosevelt, on his return from the Isthmus, wrote : " *At the outset I wish to pay a tribute to the amount of work done by the French Company under very difficult circumstances.*"

On the 17th of June, 1910, the London *Standard* published reports of the conversations its correspondent on the Isthmus had with the officers of the United States army in charge of the works. Speaking of Colonel Sibert, one of the most eminent among the military engineers who are conducting these difficult works, the *Standard's* correspondent said :

" He, and all other officials I met, emphasised, not in any spirit of generosity, but with sincere professional appreciation, the excellence of the work done by the French engineers. According to most of the American officers in charge of the great Canal departments, the foresight, skill and ability displayed by the French under the Lesseps régime have never received the praise they deserve."

With these words, provoked by the works of the French at Panama, I close this chapter, for they admirably express one of the objects of this book, namely, to unmask the intrigues which for so long a time have blinded the world, and to show how they were finally baffled.

NOTE

To the testimony of figures and to that of men of science I would add the further testimony of the photograph taken during the French period; and also of the profiles made by the American Engineers.

That this added testimony is needed is shown by recent misconceptions.

The *Daily Mail*, for instance, in its London and Paris editions, published on the 1st and on the 4th of September, 1912, a communication from Panama, signed W. B. Lord and containing the following unqualifiable statements. Though such utterances deserve to be treated with scorn, they might well impose upon a credulous public, when they have already passed the censorship of a great newspaper.

In the number of September 1, 1912, may be found the following :

That any serious attempt was made to dig a waterway by the French must be dismissed as farcical when the plant of the past is compared with that of the present. The toy railway lines of the French are piled in scrap heaps, while the sturdy five-foot gauge gives steady support to the crowded dirt and rock trains. . . .

To this ineptitude, and to many other similar ones, the accompanying photograph offers a curt reply. The tracks are precisely five-foot tracks. That was the dimension of the old Company's lines as it has remained of those of the American Government in their actual works.

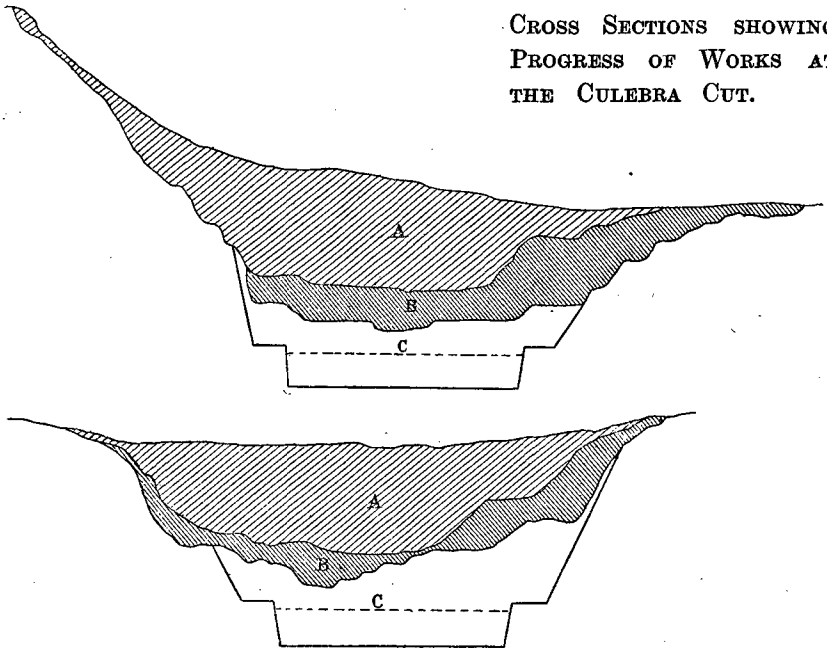
In the issue of September 4, 1912, of the same newspaper we read :

" *Work in the famous Culebra Cut . . . . . is fast drawing to a close. . . . . The French failed at this part of the work, and small wonder. Their infantile efforts to cut a channel through the hills was nothing short of ludicrous. What they sought to do with pick and shovel almost quailed the hearts of those with huge steam scoops, thousands of dirt-carrying railway trucks . . . . . and armies of workmen composed of every nationality under the sun.*"

The photograph facing p. 13 shows how this *ludicrous work* attempted *with pick and shovel* was in reality executed by huge steam excavators weighing seventy-five tons, on five-foot tracks with thousands of " dirt-carrying " railway trucks and an army of workmen.

The result of these *toy railways* and these *pick and shovels* executing a *ludicrous work* in a *farcical attempt* was the opening through the Culebra summit the cut which is represented by the two cross sections opposite. One has been taken from the *Canal Record* of October 27, 1909. It is a cross section made across the very summit of Culebra at the continental divide. The second one is a cross section taken in front of Gold Hill in February 1910, and published in a special pamphlet by the Isthmian Canal Commission for the end of the sixth year of American works. These cross sections show the result of the work of the French, which, according to Mr. W. B. Lord, *quails the heart* of their successors, and which, according to the American Army Engineers in charge of the actual undertaking, *never received the praise they deserve.*

CROSS SECTIONS SHOWING PROGRESS OF WORKS AT THE CULEBRA CUT.



A. Excavation made by the French.
B. Excavation made by the Americans.
C. Excavation remaining to be made.

The first of these cross sections is extracted from a pamphlet issued by the Isthmian Canal Commission, giving the result of the works from May 4, 1904, to April 1, 1910, that is to say, during approximately the first six years of the American works. The cross section passes through Gold Hill.

The second of these cross sections is extracted from the *Canal Record*, October 27, 1909. It is a little nearer Panama than the first one and passes between Contractor's Hill and Gold Hill, close to the highest point on the axis before the Canal work was begun.

PANAMA—THE CREATION

CHAPTER II

THE PERIOD OF DREAM

On the 25th of September, 1513, Vasco Nuñez de Balboa went through the Isthmus of Panama and discovered the Pacific Ocean, the "South Sea," from one of the peaks of the Darien Cordillera. He nursed the ambition of finding a passage between the two seas. He built caravels on the shores of the ocean of which he had taken possession in the name of the King of Spain.

Then took place the first act of this long drama of wickedness and jealousy. In 1517 Balboa was decapitated in virtue of a judicial sentence rendered according to the orders of Pedro Arias, Governor of the "Cuesta Firme." It was the first judicial iniquity which the history of Panama was to register. It was not to be the last.

On the 15th of October, 1524, Hernando Cortes, who had conquered Mexico three years before, wrote from Temixtitan (Mexico) to Charles the Fifth :

"As I am informed of the *desire which your Majesty has of knowing the Secrets of this Strait*, and as I know what great service would be rendered to your Majesty's Royal Crown by such discovery, I sacrifice all the other advantages and interests which I have elsewhere in order to enter upon this particular path, ... because it is in the mind of many pilots that *into this bay open straits joining with the other sea, which is the thing in the world I desire above all others to discover.*"

It was not to be the destiny of Cortes to make that discovery, nor that of any other navigator who dreamed of finding the *Secret of the Straits.*

The idea of connecting Nature was mooted, but Philip the Second forbade any modification of what God had created. The junction of oceans remained in the realm of dreams.

Early in the nineteenth century there were certain movements that indicated some efforts to introduce this great question into the domain of practical reality.

The Choice of French Genius and the Choice of American Genius

It is a matter worthy of remark that the genius of each nation interested was distinct from the outset. The French genius, impelled by a desire for perfection and simplicity, chooses Panama. The Anglo-Saxon genius, under the influence of the desire to obtain above all a practical result, with the least possible effort, chooses Nicaragua.

In February 1826 the American *Chargé d'affaires* in Nicaragua is directed to provide the President of the United States with all information referring to the Nicaragua Canal. The same year John Baily makes the first surveys of this route for an English Company.

On the 5th of July, 1850, England and the United States sign the Clayton-Bulwer Treaty for the settlement of the principles that are to govern the construction and operation of the Nicaragua Canal. These principles are, as a matter of fact, made applicable to any other route to be created between the oceans. One year earlier the American company for the construction of the Maritime Canal Pacific Atlantic had been formed. Among its founders was Cornelius Vanderbilt, and a treaty had been negotiated by Mr. Squier, the American Minister in Nicaragua, in the interests of this company. The same company had sent Colonel Orville W. Childs of Philadelphia to survey and report on the route of the projected canal. He began these surveys in August 1850 and finished them in March 1852.

The President of the United States and the Queen of England decided to submit Childs' project to eminent technical authorities in America and in England respectively. Both commissions agreed in 1852 as to the feasibility and practicability of the American engineer's project of a canal across Nicaragua.

In the Panama region, on the other hand, a French company had received, as far back as 1836, a concession for the establishment of roads, railways or a canal across the Isthmus. Its leading spirit was Mr. Salomon.

This company was at work for several years. In September 1843 M. Guizot, Minister for Foreign Affairs under King Louis Philippe, sent Napoléon Garella, a Chief Engineer of the State Department of Mines to survey a canal across the Isthmus of Panama. Garella was the first to select the Bay of Limon as an appropriate place for the Atlantic entrance of an Isthmian canal.

In 1847 it is again to a French company that the concession for establishing a railway across the Isthmus of Panama is granted. One year later the contract was transferred to Aspinwall, who was to open in 1855 from Colon to Panama the first transcontinental railway.

From this rapid account one thing stands out which symbolises and outlines the history of the future.

It was France which inaugurated the first scientific investigations. She chose in 1838 the Isthmus of Panama without pressure from any quarter whatever. The United States comes later, and in 1851 undertakes scientific studies in the region which she considers appropriate, namely Nicaragua.

A few years after the end of the first half of the nineteenth century the question which for a moment had been so violently discussed fell once more into a period of dream.

CHAPTER III

NICARAGUA CHOSEN AT WASHINGTON IN 1876—PANAMA CHOSEN AT PARIS IN 1878

THE triumphal inauguration of the Suez Canal in 1869 sounded the bugle call to action.

When mankind saw that the genius of man had effected at Suez the separation of the two old continents, the similar problem presented by the New World came once more to the front.

LORD PALMERSTON AND THE SUEZ CANAL: "A BUBBLE SCHEME"

The preachers of impossibility, the fomenters of panic, seemed to be definitely crushed. The great scheme which Lord Palmerston, in the name of Queen Victoria's Government, had several times repudiated in Parliament had become a reality. On the 7th of July, 1857, the Prime Minister had said of M. de Lesseps' enterprise:

It is an undertaking which I believe, in point of commercial character, may be deemed to rank among the many bubble schemes that from time to time have been palmed upon gullible capitalists. I believe that it is physically impracticable, except at an expense which would be too great to warrant the expectation of any return.

On the 23rd of August, 1860, Lord Palmerston again expressed himself thus about the Suez Canal Company:

The company is, as I have often said, one of the greatest and most remarkable attempts at delusion that has been practised in modern times. It is a complete fallacy from beginning to end.

The inauguration of the Canal was a complete reply to the pessimism of Lord Palmerston.

General Grant then desired to bestow upon his country the honour of having joined the Atlantic with the Pacific, in order to celebrate his assumption of the American Presidency.

Seven Years' Surveys and Studies by the American Government

In his first Presidential message to Congress he recommended to the American people the construction of an American canal on American soil.

Congress furnished President Grant all the money needed. Exploration and surveys were begun on all possible routes between the oceans. In 1872 Congress decided upon the formation of a special commission, in order to centralise the results already obtained, and also to begin, if necessary, fresh surveys warranting a final conclusion.

This enormous labour in preliminary investigations and surveys was conducted independently of any possible influence from material or moral interests. All the passages between the two oceans were then absolutely free from concessions. Considerations of public interest concerning the cost, feasibility, and utility of the respective solutions were alone in the field.

The American mind then made a solemn demonstration of its preferences. They were in accord with the premonitory facts which I have mentioned : Nicaragua was selected.

In February 1876 the " Interoceanic Canal Commission " concluded its works with the following unanimous statement :

That the route known as the Nicaragua route . . . possesses both for construction and maintenance of a canal greater advantages and offers fewer difficulties from engineering, commerical and enonomic points of view than any one of the other routes.

One month after this final decision, and in all probability because the idea had rebounded, as it were, from Washington to Paris, a Committee was formed on the 24th of March, 1876, by the Paris Geographical Society to study the question. M. de Lesseps was made the President of this Committee.

The adoption by America of the Nicaragua Canal caused in France at the time a sensation similar to that which the inauguration of the Suez Canal by France had created in America.

This sensation led, a few years later, to the Panama enterprise.

In 1876, therefore, the Americans are officially pledged to Nicaragua while the French are rallying round Panama under the leadership of M. de Lesseps.

Twenty-eight Years' Struggle between Panama and Nicaragua

The struggle of these two competitive ideas was to last until the day I signed the protocol of exchange of ratification of the Hay-Bunau-Varilla Treaty, on the 26th of February, 1904.

On that day the battle of the routes ended in a French victory. The American mind had recognised the superiority of the French solution and had finally surrendered. Nicaragua considered during twenty-eight years as an American national idea was forever abandoned.

It is essential to clear up this point of history at the outset.

We witnessed, as I have already stated, a strange comedy. The people who declared the French enterprise impossible, and thus persuaded its shareholders to abandon it, made a sudden *volte-face*. "It is an abomination," they said, "the Americans never intended to carry out the Nicaragua scheme. They invented it in order to checkmate Panama and buy our property for an insignificant sum. They well knew the enormous value of Panama."

The trick was too transparent and deceived only a small number of ingenuous persons. It is, however, necessary to expose it by the light of history.

Beginnings of the Panama Enterprise

As soon as the question of piercing the American Isthmus came to the fore in France, a syndicate was formed with a view of obtaining the grant of a concession.

This movement was caused by the spectacle of the growing profits which the Suez Canal was beginning to show.

A share, which had been worth not more than fifty-eight dollars in 1869, forty-two dollars in 1870, thirty-five dollars in 1871, and thirty-seven dollars in 1872, was gaining in value. It was soon to reach, in 1880, the 250 dollars level. Insignificant at first, the Suez traffic was increasing daily, and was to attain in 1879 the 3,000,000 tons gross which had in 1855 been calculated as its normal share in the universal traffic. To be sure nobody then divined that the value of the shares would be over $1200 in 1912, but many foresaw a splendid future.

Financiers formed a syndicate to obtain a concession for a canal somewhere across the American Isthmus with the intention of selling it later on to a company.

This syndicate entrusted Messrs. Bonaparte Wyse and Reclus with the task of making surveys and obtaining a concession if their surveys revealed a practicable route.

In 1869 man was at the end of the period of dream. In 1876 the period of reality began. This period was now to suffer no interruption.

The Isthmuses of Darien and Panama were explored by the engineers of the syndicate, and, on the 18th of May, 1878, Colombia passed a law granting to M. Napoléon Bonaparte Wyse, one of these engineers, the concession of the Canal.

This was the first step forward.

For a time, at least, it would have been the last one also, had it not been for M. de Lesseps, then in the full flush of his Suez triumph. The concession would have remained a dead letter. It would have suffered the same fate as that of Mr. Salomon for Panama in 1838, and as that of the Vanderbilt syndicate for Nicaragua in 1849.

No other but M. de Lesseps would have had sufficient prestige to gather the huge capital necessary for such an undertaking.

His son, Charles de Lesseps, had just recovered from the result of the anxieties which the difficult beginnings of the Suez Canal had caused him. He tried to persuade his father not to undertake this new and huge task. The syndicate, on the contrary, made the utmost efforts to obtain a consent which was indispensable for the success of their project.

Ferdinand de Lesseps, who was seventy-three years old,[1] thought that a general who had earned one such victory could not refuse to give battle afresh. He consented to enter the arena again, but not without great hesitation.

The unexpected turn of a conversation settled his destiny.

In the course of a debate with the representatives of the syndicate, the price to be paid for the concession by the future company was discussed. M. de Lesseps said : " No, it is not worth the price you are asking for. I shall never consent that more than two million dollars be paid for it." The holders of the concession saw their opportunity. " We accept your offer, M. de Lesseps."

De Lesseps had been taken at his word. He was not the man to recoil. He went forward with all his energy.

The International Congress of 1879

The first thing to be accomplished was to obtain a scientific and solemn ratification of the proposed project of piercing a sea-level canal through the Isthmus of Panama.

With that object M. de Lesseps convened, on the 15th of May, 1879, an International Scientific Congress. This Congress rejected all proposals except two : the lock canal at Nicaragua, the cost of which was estimated at 154,000,000 dollars, and the sea-level canal at Panama, the cost of which was estimated at 214,000,000 dollars. In spite of the higher estimates of the latter project it was adopted by an enormous majority.

In the course of the session one of the members, Godin de Lépinay, expressed the idea which later on was to give its first form to the interoceanic route.

[1] Count Ferdinand de Lesseps was born at Versailles on November 19, 1805, and died at La Chesnage on December 7, 1894.

His arguments can be summed up as follows :

" You are confronted by the excavation of a central mass, the ' Culebra ' proper, which is about one geographical mile in length, and the highest point of which is at 330 ft. above the level of the sea. The distance from this culminating point to the Atlantic is about twice as great as its distance to the Pacific.

" The surface of the ground slopes slowly towards the Atlantic along the *Obispo*, one of the left tributaries of the Chagres, then along the Chagres itself. It slopes slowly towards the Pacific along the Rio Grande. If you make a sea-level canal you will have to dig a cut about thirty feet below the sea, all along the Chagres and Obispo valleys, through the Culebra mass and along the Rio Grande valley. The difficulties entailed by so huge a task would be enormous in any country ; they will be nearly superhuman in a tropical country poisoned by yellow fever.

" Here is the method by which I propose enormously to reduce the task.

" Erect a dam across the Chagres and another across the Rio Grande at both ends of the Isthmus, as near the sea as possible, wherever a suitable place may be found to erect a stable dam. Thanks to these dams, let the waters of the rivers rise behind them till they reach approximately a level of 80 ft.

" Establish locks between the level of these lakes and the respective oceans so as to raise or lower ships from the lake to the ocean and *vice versâ*.

" The problem will then be limited to the establishment of a canal between the two lakes thus formed. You will have almost nothing to do in the valleys of the Chagres and of the Rio Grande, and your cut along the Obispo valley and through the Culebra mass will be made 80 ft. less deep than would be necessary with a sea-level canal.

" Your task will be enormously reduced."

Godin de Lépinay thus outlined the programme which was followed by the Americans twenty-seven years later.

His proposition was not even deemed worthy of discussion.

Was this disdain absolutely unjustified ? No, because to adopt Lépinay's solution at the time was to condemn the canal to perpetual locks.

It was in those days inconceivable that a canal could be first constructed with locks and later on transformed into a sea-level canal. The reason of this apparent impossibility was : first, the extremely high cost at that time of the rock excavation under water, which such a transformation would necessarily have entailed, and, secondly, the

non-existence at that time of the solution which I gave later on, and which follows the gradual elimination of the locks without troubling the navigation for one moment.

The Bridge between the Lock Scheme and the Sea-level Scheme

The new principles which were the fruit of my experience during the works I accomplished at Colon in 1885 altogether altered the problem. To-day the excavation of rock under water is not only no dearer, but it is even cheaper than extraction in the open air.

As far back as 1885 I succeeded approximately in reducing the cost of rock excavation under water to that of dry-rock excavation. From that day the possibility of practically transforming a lock canal into a sea-level canal was demonstrated, provided it could be accomplished without interfering with navigation.

In 1879 the excavation of rock under water was so expensive an operation (eight to ten times the price of dry-rock excavation) that it was impossible to conceive that a lock canal could be transformed into a sea-level one. Godin de Lépinay's idea, which in 1879 was with reason rejected, could in 1906 be legitimately adopted, since in the interval I had succeeded in overcoming the obstacle which rendered the solution inacceptable at the outset. It was taken up then because its adoption did not preclude the possibility of obtaining finally the free straits which I proposed to open between the two oceans. It is this very consideration which Senator Knox brought before the American Senate, and thanks to which he carried the vote of that high legislative body in favour of a project born in Godin de Lépinay's brain in 1879.

CHAPTER IV

THE FORMATION OF THE PANAMA COMPANY IN 1881 BY M. DE LESSEPS: ITS EARLY STAGES

IMMEDIATELY after the decision of the International Congress the period of activity began.

FAILURE OF FERDINAND DE LESSEPS' FIRST APPEAL FOR SUBSCRIPTIONS

M. de Lesseps, on the 6th and 7th August, 1879, requested the public to subscribe eighty million dollars for digging the Panama Canal. He elected to ask this sum straight off from the subscribers who knew and admired him. He refused to pay anything for advertisements.

The subscription was a complete failure.

It was plain that fame alone could not raise money.

Lamartine had said : " God Himself requires bells."

M. de Lesseps lost an illusion at an age when few are left.

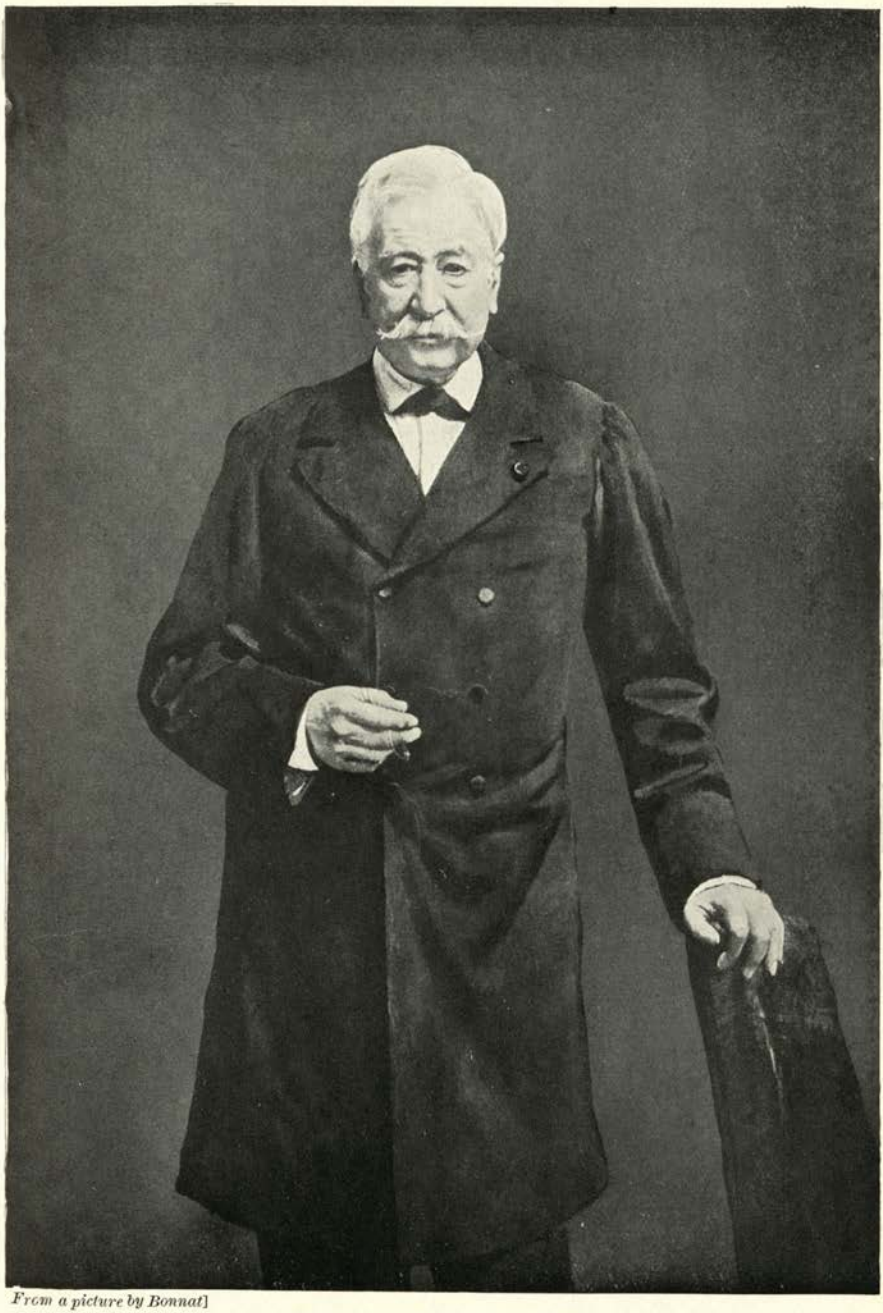
On the 14th of August, 1879, he proclaimed, first, that he was going to America; second, that M. Couvreux was going to undertake practical investigations in order to determine the cost of the works with reliable exactitude.

M. de Lesseps was bitterly blamed for having thus shaken public indifference. It was assuredly a grave error on his part. But his good faith is above all suspicion.

FERDINAND DE LESSEPS AND " PRACTICAL MEN "

M. de Lesseps was not an engineer and he did not like engineers. He preferred to engineers the class known as " practical men."

He did not understand that these " practical men " can be good counsellors only in the countries where they have acquired " practical experience." He did not know that anywhere else with new elements of labour, new sanitary conditions, excess of rainfall, and ground to excavate the nature of which was unknown, they are liable to proffer the most dangerous advice. Their limited education deprives them



From a picture by Bonnat]

FERDINAND DE LESSEPS

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of that suppleness of mind needed to foresee and to measure the unknown quantities in a new problem.

With undeniable good faith, but with an incredible *naïveté* M. Couvreux has given us a public narrative of his state of mind.

In a banquet given at Gand to M. de Lesseps in June 1880 he dealt with the question of the truly astounding reduction of one half which he had made on the estimates of the 1879 International Congress.

Astonishing Ignorance of M. Couvreux

"M. de Lesseps told you to-day in his captivating speech that our firm would be entrusted with the execution of the works of the Panama Canal. We have established the estimates of the cost of construction at 102,400,000 dollars.

"Some of my friends have expressed their astonishment open-heartedly to me, and I thank them for it. They were puzzled to see that we reduce as low as 102,400,000 dollars, the estimates for the Panama Canal which were first fixed at 200,000,000 dollars by the Paris Congress and later diminished to 168,600,000 dollars by the Technical and International Commission of Panama.

"This is, gentlemen, a most important point in the Panama question and *it is particularly so for the good name of our firm.* I wish to explain this to you and I respectfully request M. de Lesseps to allow me to tell you how we have been led to adopt such a reduced figure.

"On May 15, 1879, when the Congress for the study of the International Canal met in Paris, five commissions were formed. One of them, by far the most important, was the Technical Commission. Its task was to study the various projects and to establish the estimates relating to each of them.

"Careful examination of the second sub-commission showed after a few days that two projects only were worthy of consideration: the route over Nicaragua with locks, and the sea-level route at Panama with an open cut. During the discussions of the Congress the idea of a tunnel on the Panama sea-level route had already been abandoned.

"The first sub-commission was composed of six members, among whom were my father and his old comrade and friend, Louis Favre, the lamented contractor of the Gothard tunnel. *They had the honour to sit in this commission in the capacity of men of the trade, who were able to indicate with certainty the prices at which the ground could be excavated, as well as the prices for masonry structures. Neither of them succeeded in getting their ideas accepted. They were met in the sub-commission by men imbued with a partisan spirit and preconceived ideas who rejected their figures. The minority of which they were a part abstained from voting and did not approve the report.*

"The Nicaragua Canal was opposed to the Panama Canal, which is so simple and so practicable. But the scientific arguments of MM. de Fourcy (*Inspecteur-général des Ponts et Chaussées*), Huyssen, Conrad and Voisin Bey united again the whole technical commission on the Panama Canal.

"Certain people wanted, in order to carry the vote of the Congress, to demonstrate that the Nicaragua Canal was to be less costly than the Panama Canal. This is the reason why the *friends of the former route supported high figures for the prices of excavation of earth and rock, in order to increase the estimates of Panama,* and low figures for locks and jetties which was bound to decrease the estimates of Nicaragua.

"This is why at the last and memorable sitting of the Congress were displayed in large letters on a blackboard the following figures:

"'Cost of the Maritime Canal { Via Panama, $200,000,000. / Via Nicaragua, $140,000,000.'

"In spite of this enormous difference the members of the Congress voted by a great majority for the lockless, tunnelless, sea-level canal of Panama, and against a canal at Nicaragua for which twenty-four locks were necessary.

"A short time afterwards M. de Lesseps did my father the honour of asking his opinion on the decision of the Congress. The discussions which had taken place cast a certain doubt on the possibility of carrying out the works. It was at this moment that my father and Mr. Hersent decided to send one of their engineers to the Isthmus. The purpose of his mission was to examine whether the objections presented to the Congress were well founded, if at the first glance the works were possible of execution. He had to make a condensed report on the sanitary conditions of the Isthmus and the resources of the country.

"On the other hand, M. de Lesseps was organising a technical and international commission with which he had decided to go to Panama. In order to prove that *the epithet of deadly climate used when speaking of the Panama Isthmus was nothing but an invention of exasperated adversaries* he announced that Mme. de Lesseps and three of his young children would accompany him. You know what has been the result of this trip as regards the sanitary aspect of the question. Gentlemen, we must congratulate this courageous and noble woman on the proof she has given of her generous devotion to her husband.

"The very extended reports of our engineer were favourable to the enterprise and on the 8th of December, 1879, M. de Lesseps, and his family, together with the members of the commission left France on board the *Lafayette*. As you know, gentlemen, I had the honour of being accepted by M. de Lesseps as one of the members of this commission. I can, therefore, tell you frankly what has happened with the authorisation of our illustrious President.

"After one month of fatiguing surveys on the line of the future canal, in the midst of a country the vegetation of which is so luxuriant as to form a veritable virgin forest, all the gangs of surveyors were summoned to Panama. Another work just as difficult began. We had to draw out on paper the profiles surveyed, to make the necessary calculations, and to discover the most advantageous locations on the plan for the axis, without disobeying the rules set by the Paris Congress as to the minimum radii of the curves. *The calculations demonstrated that the volume of earth and rock of all kinds to be excavated for the opening of the canal would not go beyond a maximum of seventy-five million cubic metres* (100,000,000 *cubic yards approximately*).

"The subsoil, which presented so many variations in this part of the Isthmus, was methodically classified: earth and alluvial deposits, soft rock, hard rock, etc. In spite of the numerous borings carried out the classification of the various kinds of soil to be extracted were only, as will be understood, of a provisional character.

"The question how the unit prices were to be determined for these different classes of work presented itself later on.

"The same discussions which had taken place at the Congress of Paris in the first sub-commission of the Technical Commission began again. It seemed probable that it would be difficult to reach an agreement *when it*

was wisely decided in order to avoid any criticism, to use the unit prices fixed by the Congress.

"This is, gentlemen, why the estimates delivered at Panama on the 14th of February last, to M. de Lesseps by the Technical and International Commission, reached the figure of 168,000,000 dollars.

"All the documents which formed the basis of our calculations were brought back to Paris.

"*Their examination, and the details given by our fellow-workers who had returned to Paris convinced my father and M. Hersent that important reductions could be made on those estimates.*

"In consequence of that, *after consulting several of their colleagues and after comparing these estimates with the cost of works executed in Europe and in Egypt they finally presented to M. de Lesseps these new estimates of* 102,400,000 dollars.

"You must take notice, gentlemen, of the fact that instead of adopting the price of fifty cents for the extraction of one cubic metre of earth or alluvials we reckon on a cost of only forty cents. For the Canal of Terneuzen and for the works at Antwerp the Belgian State only pays twenty cents, and at Panama we have to handle millions of cubic metres.

"If it is possible to economise on the extraction of earth, why would not the same thing be true of the rock? We have been obliged, in order to obtain a consensus of opinion, to admit a lateral inclination of four in the vertical for one in the horizontal in the side slopes of the Culebra cut. *Do we not see in your country quarries of more than* 180 *ft. depth, the sides of which are vertical? Why should not such a condition of things exist there?*

"If rocks are soft and require a small angle of the slopes to the horizontal the lowest cost price must be admitted for them. If rocks are hard the lateral slopes of the cut will be nearly vertical and this will reduce the cube first calculated.

"For rocks and stones we have admitted but two prices, one dollar twenty cents, or one dollar eighty cents. The former price will be applicable whenever the use of explosives is not necessary.

"Extra expenses have been taken into account for pumping and for excavation in the sea.

"It is certain that *if these prices are still greater than they should be and if the future shows that the estimates, to-day established, have been too high the blame must not go to those who have prepared them. On the contrary it will be but equitable to recognise their wise foresight in the elaboration of gigantic works to be executed in countries so new and so little known.*"

It is indeed difficult to condense in fewer words a greater number of gross errors.

What are we to think of the calculation of the volume of excavations, in which M. Abel Couvreux had collaborated as a member of the International Commission? It had established, says M. Couvreux, that a maximum of 100 million cubic yards would have to be excavated for opening the sea-level canal. When the canal works were transferred to the American Government in 1904 there had been excavated more than eighty million cubic yards.[1] A sea-level canal was, however, so remote that the richest nation in the world, the American Republic,

[1] 72,000,000 cubic yards by the old Company and about 8,000,000 cubic yards by the new Company.

did not dare to undertake it. She had to be satisfied with the completion of a lock canal. She followed the rule I had enunciated in 1887: lock canal first, sea-level canal afterwards.

Influence of M. Couvreux's Ideas on M. de Lesseps

Such a speech as M. Couvreux's is highly instructive. It shows how heavily the opinion of these so-called "practical men" weighed with M. de Lesseps. The radically erroneous statements of M. Couvreux were expressed with the same authority as if they were eternal truths spoken from an infallible pulpit. Their consequence was to convince M. de Lesseps that the execution of the canal was a relatively easy task. Once the great man was convinced the same conviction soon possessed the public mind.

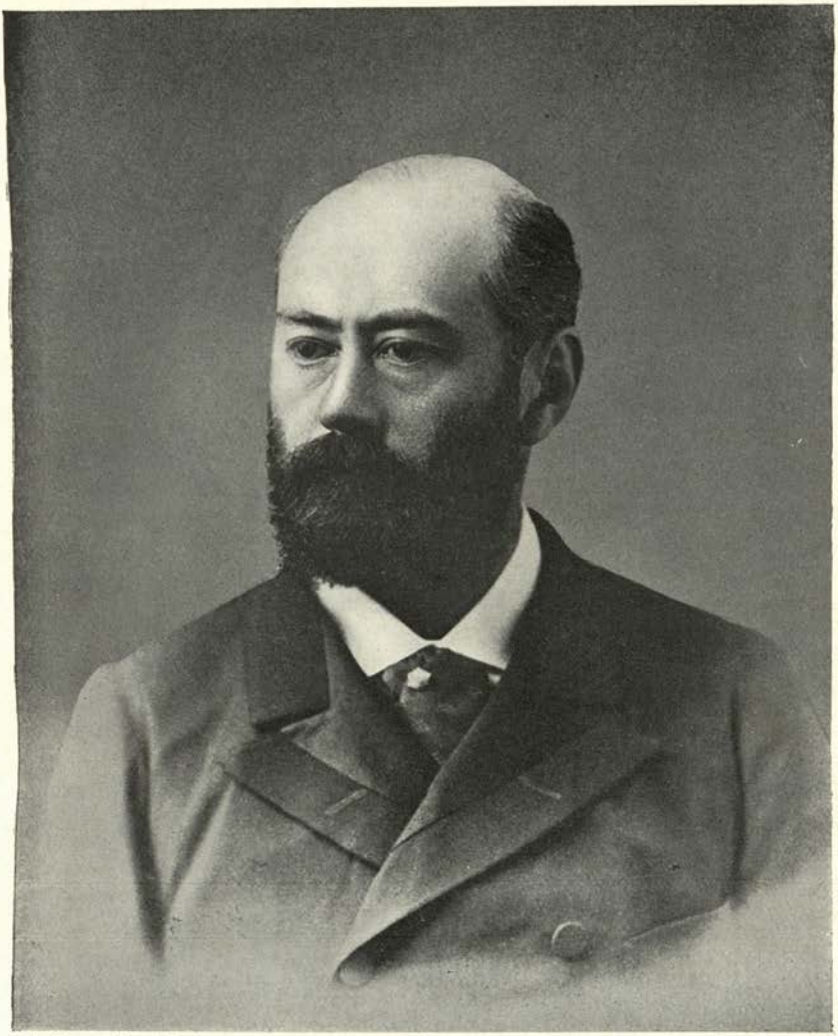
MM. Couvreux and Hersent's responsibility is immense. Nor did they redeem their presumption by sacrificing themselves to the enterprise. They completely deserted the battle-field when their engineer, Blanchet, fell a victim to that climate which, as M. Couvreux says, "only exasperated adversaries called deadly." The struggle was continued without them. In seven years and three quarters, that is, from the 12th of March, 1881 (date of the Couvreux and Hersent contract), to the 14th of December, 1888 (failure of the company), seventy-two million cubic yards were heroically excavated. This came very near to being the materialisation of the dream of M. de Lesseps of 100 hundred million cubic yards in eight years. This dream would have been fulfilled in about nine years instead of eight.

MM. Couvreux and Hersent had no share in this great accomplishment. But when the new Panama Company was formed, apparently to finish the works undertaken, none of those who had contributed to this gigantic effort was sent for. On the contrary M. Abel Couvreux became one of the members of its board of directors and M. Hersent joined its committee of technical advisers. These selections symbolised the new Company's destiny.

The death of M. Blanchet and the absence of MM. Couvreux and Hersent during the year 1882 left the works without a precise programme. The contract with MM. Couvreux and Hersent was cancelled by mutual agreement on December 31, 1902. M. de Lesseps, with the help of his son Charles, had to rally the troops and to reorganise the army. They put at its head M. Dingler, who left for the Isthmus with M. Charles de Lesseps on February 5, 1883.

Scientific Organisation of the Works: Dingler

It is just at this moment that we can date the origin of a vigorous and scientific organisation of the Panama works. No tribute to



Washburn, New Orleans]

M. CHARLES DE LESSEPS, VICE-PRESIDENT OF THE PANAMA CANAL COMPANY

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M. Dingler's admirable individuality can ever be too high. He sacrificed everything to his duty as engineer and as a Frenchman. He underwent with serenity the most terrible tortures the heart of man can endure.

Having left in the autumn of 1883 with his wife, his son, his daughter and her *fiancé*, he saw the three young people taken from him in a few months. In the following year his wife returned with him, and she, in her turn, died on the 1st of January, 1885.

These trials which might have shaken the reason of any man did not drive this hero one step out of the path of his duty to the task in hand.

Under his energetic impulsion the works emerged from their chaotic state and became organised. An enormous and rationally conceived plant was ordered.

With a view of stimulating the interest in the organisation of the works he gave a series of minor contracts to men most qualified to undertake a part of the excavation of the Canal.

In a word M. Dingler was the first leader the Canal scheme had known.

In his efforts to re-establish discipline he was obliged to treat some individuals with rigour. These men sought vengeance in libelling him.

A wooden cottage which had been constructed in the neighbourhood of the hospital, as a country house for the Company's general manager, was baptized "Folie Dingler," the word applied in the eighteenth century to *pavillons secrets* in the outskirts of Paris.

The car he ordered for the inspection of the works was called the "Wagon Palais." It was a wicked translation of the word "Palace Car." The "Wagon Palais" and the "Folie Dingler" were invented in order to persuade people in France that M. Dingler was extravagantly and cynically spending for his own use the funds of the Company.

It was an abominable and cruel fiction.

But while I have the greatest respect for M. Dingler's character, as well as for the work he accomplished, I cannot say that everything he did is above criticism.

He made some grave errors in his judgment of men. He also committed a grave error from the technical point of view.

He put aside some first-rate men whom he found near him and he favoured others who did not deserve such consideration.

He obliged the Company to order the enormous and necessary plant which was sent to the Isthmus. His ideas as to what machines were necessary, were correct, except as regards the plant which was to be combined with the great floating dredges of the Chagres valley. He hoped to use pumps to transport the output of the dredges to

the dumping places, but this system was not successful. That was M. Dingler's great technical error.

The error might have been easily repaired; but when I urged this neither the Panama Canal Company nor the contractors who employed the dredges would listen. Both collapsed, probably owing to their refusal to accept what was to me so obvious.

I had then left the service of the Canal Company in order to solve the Culebra problem by new methods, for the application of which I had formed a contracting company at the request of the Canal Company.

I was no longer at liberty, therefore, to command outside of the limits of the Culebra Cut. My sole part could be to give advice. My suggestion was not followed on this vital point by the interested parties.

But on the whole M. Dingler's influence on the destiny of the Canal was bold, loyal, scientific, and stimulating.

M. DINGLER, GENERAL MANAGER AND CHIEF ENGINEER OF THE PANAMA CANAL COMPANY (1883–1885)

CHAPTER V

THE FIRST PERIOD OF MY CONNECTION WITH THE PANAMA ENTERPRISE

IT was during the sojourn which M. Dingler made in France in 1884 that I finally resolved to devote my life to the Panama Canal.

My decision was due to the following considerations.

HOW I CONSECRATED MY LIFE TO THE PANAMA ENTERPRISE

On the 17th November, 1869, when the Suez Canal was inaugurated I was a little over ten years of age. The echo of this glorious event roused my youthful imagination.

One day when a young student of the *École polytechnique*[1] was visiting my mother the conversation fell on the Suez Canal. "Alas," said he, "how unfortunate it is for me to have been born so late. I might otherwise have been associated with this great enterprise." "But," answered my mother, "you still have the Panama Canal left. Why do you not make it ?"

These words gave birth in my mind to an ambitious thought: "Perhaps I shall be early enough for the Panama Canal."

In 1880, M. Ferdinand de Lesseps, on his return from the Isthmus, accepted an invitation from General Pourrat, Commander of the *École polytechnique* to give a lecture to the students. It was some months before I was to complete my studies. I sat in the first row of the enthusiastic audience. The Panama undertaking was about to begin.

In order to attain the ideal that I had cherished ever since my childhood I had to submit to the chances of the examinations, and to pass out high if I were to become a member of the corps of *ingénieurs des Ponts et Chaussées*. I had, furthermore, to stay three years at the special school of the *Ponts et Chaussées* before entering on active work. As I listened to M. de Lesseps I kept saying to myself: "Shall I get

[1] The *École polytechnique* is not an engineering school. It is a military school exclusively devoted to the study of pure science: high mathematics, physic, chemistry, astronomy, etc. Its aim is to provide the military and civil services of the State with officers scientifically educated. After the *École polytechnique* the cadets enter the respective *Écoles d'applications—pour Artillerie, Ponts et Chaussées*, etc.

there ? If I do, will it not be too late for me to play an important part in the great undertaking ? "

Youth does not grasp the meaning of time. I was to learn this later on, for even twenty-six years later I was still at the same work.

I surmounted the first obstacle successfully. I came out of the *École polytechnique* in 1880, and three years later I left the *École des Ponts et Chaussées*. I was then an engineer of the French Government and had acquired the rank and title necessary to serve in Panama. Henceforth I had the qualifications necessary for the enterprise which demanded, as a first token of faith from those who entered it, the eventual sacrifice of their lives.

But a new difficulty arose. An antiquated regulation required the engineers of *Ponts et Chaussées* to stay five years in the Government's service before being authorised to serve a private company.

After being charged by the Government with a mission to Algeria and Tunis, a short time after the French had taken possession of the latter country, I was ordered to Bayeux. A few days later a circular letter from the Department of Public Works was sent to the Engineers of the Corps, informing those who desired to go to Panama that they would be authorised to accept this mission.

The expression " mission " made me believe that in this case the regulation of the five years' service would not be enforced. I thought the engineers would be considered as engaged on a " mission " and not as enjoying " leave of absence." I immediately requested to be authorised to accept such a " mission."

The immediate answer was that I must apply again in five years. I nursed my sorrow, concentrating all my energy on the harbour works of Port en Bessin and of Isigny, and on my task of keeping in good repair the National Highway No. 13 from Paris to Cherbourg, which occupations were not specially fascinating to me.

The Wise Advice of the Librarian, Schwoebelé

One year later, in the autumn of 1884, I went to consult M. Schwoebelé the librarian of the *École des Ponts et Chaussées*. This excellent man was the good genius and his library the rendezvous of the engineers. He had lived in the school for about half a century. He had seen there as students all the engineers of the Corps. He knew the contents of each of the 70,000 books which composed the treasure of which he was the guardian. He was in himself a walking library.

" My dear M. Schwoebelé, can you not find a way for me to realise the ambition of my life, and to make it possible for me to go to Panama, without resigning from the Engineers Corps ? "

" Why," said he, " do you really wish to commit suicide ? Look

at Dingler, he has already left there his son, his daughter, and her *fiancé*. To go there is to run to your death."

"As an officer runs to it when he hastens to the battle-field," I answered; "and not as the coward who flees from the sorrows of life."

"That is your own business, after all," said M. Schwoebelé, with a look of deep regret. "So if you still wish to go to Panama I do not think the Minister will refuse you this time."

"Why?"

"Because there is now an excess of engineers in the service of the State. The *conventions* with the great Railroad Companies have transferred to them all the works which the Government had undertaken. Go and see M. Gouzay, who has charge of this question at the Department of Public Works. He will soon find a solution of the difficulty. He most likely will put you on leave officially for private affairs, with the understanding that you will go and serve on the Panama works. At the end of your five years you will be officially detailed to the Panama Company. You will be glad and the Minister as well. But for God's sake think again before you decide."

"My dear M. Schwoebelé, I have thought over the matter again and again. I am now ready for action. Thank you for your information."

Eight days afterwards I was on my way from Saint Nazaire on board the *Washington* bound for Colon with M. and Mme. Dingler. It was the 6th of October, 1884.

The dream of my childhood was becoming a reality. I had arrived in time to enlist in the war against Nature.

It was I who was following the prophetic indication which my mother, fifteen years before, had given in my presence to the young student of the *École polytechnique*: "Suez is finished, but Panama remains to be made. Make it!"

The Organisation of the Works on My Arrival at Panama

During the twenty-one days that I had to spend on board with M. Dingler and his documents, I was able to acquire everything that man can learn outside of that which only actual experience provides. But that is the most precious part of his knowledge. Experience is the great teacher.

I resolved to consult it often and to spend most of my time in contact with facts.

I found the canal works subdivided into three divisions: the first one included Colon and the greater part of the Chagres valley; the second one extended over the rest of the Chagres valley, and over

the valley of its tributary, the Obispo, to the foot of the Culebra divide; the third one embraced Culebra and the Pacific slope. As soon as I arrived I was placed at the head of the third division.

All the works were executed by M. Dingler's small contractors except for a large dredging concern in the Colon region.

Up to that time Culebra had resisted all attacks. The layer of soft, plastic clay which extended over the whole Culebra saddle-back had rendered all efforts completely futile once the rainy season had set in, which lasted from the end of March to the end of December. The first great contract of dry excavation was granted by the Company a short time after my arrival. It was for the Culebra works and was signed by the so-called Anglo-Dutch syndicate.

I devoted myself passionately to the work entrusted to me. The first difficulty I found in my way was the organisation of dredging in the Pacific. The question was to dig a channel five kilometres long between the mouth of the Rio Grande and the island of Naos, where a depth of thirty feet existed at low tide.

The long submarine beach which I had to open was formed of soft mud. Everybody prophesied failure: "To fill the pitcher of the Danaïdes is a problem no simpler than emptying a cut in such a soil. The deposits left by the sea will fill the cut as quickly as it is dredged."

A big marine dredge arrived a short time after me. Would it succeed in its task? Careful study of the local conditions soon changed my first impressions. They became favourable. I noticed that there were coast currents, but that the sea was as a rule very smooth. The shape of the Panama bay protects it from the access of the big ocean swell.

When there is no swell the sand and mud of the shore does not become mingled with the water. The shore currents are clear water, and do not carry solid matter. I was sure then that they would not fill the excavated channel.

Facts entirely confirmed my views. The depths of the cut opened by the dredge was found to be exactly the same on the axis six months after the passage of the dredge. It was a first battle gained; one apparently unsurmountable difficulty removed.

The terror of this obstacle had made Commodore Lull abandon as part of his project this natural entrance to the canal at the Pacific end. That was during the great American inquiry of 1869 to 1876 made at the recommendation of President Grant.

The Death of Mme. Dingler and the Insurrection of 1885

The year 1884 ended sadly, Mme. Dingler struck down by yellow fever, died during the American New Year rejoicings.

Although overwhelmed by this cruel and crushing blow M. Dingler returned on the morrow at the usual hour to his office.

To the ceaselessly recurring dangers and difficulties which nature sowed under our steps were soon added those invented by man. A formidable insurrection stained Colombia with blood, and the Panama Isthmus had to suffer the natural consequence.

The origins of the insurrections which so often perturb the Central American Republics are rarely understood.

They are more of a religious than of a purely political order. They are the visible form of the struggle between the theocratic and the democratic systems of government.

The insurrection of 1885 was no exception to the rule. To explain this I must go back a few years.

When in 1880 M. de Lesseps gave his lecture to the *École polytechnique* he did not fail to introduce into it considerations meant to be agreeable to liberal-minded young men. Among other things he told us: "When I left the ship at Colon two things struck me which we are not accustomed to in France. On the wharves great animation and perfect order but no police. I am received by Mgr. Paul, Bishop of Panama. He was a liberal bishop."

I was a few years later to make the acquaintance of this man, as amiable and kind as he was liberal—at least in appearance.

During the first months of 1885 he left for Bogota, and his arrival in the capital was the signal for the outburst of the democratic insurrection.

Among the various consequences which marked the crushing of the democratic insurrection, I may cite a law which nobody can term anything but theocratic.

Up to that time, according to the Colombian law, marriages could be consecrated by the civil authorities acting alone.

A concordat was signed at Rome on December 31, 1887, between Cardinal Rampolla and M. Joaquin Velez.

It was approved in the National Legislative Council at Bogota on the 24th of February, 1888, and on the following day a law, the Law 30 of the same Council, contained in its Clause 34 the paragraph here reproduced:

"A marriage contracted in conformity with the rites of the Catholic religion annuls, *ipso jure*, a purely civil marriage previously entered into with another person."—(Senate, Dec. '95, 57th Cong., 2nd Session.)

Thus the State of Colombia was not satisfied with the substitution of a given form of marriage, the religious marriage for another form hitherto legal, the civil marriage. It proclaimed the right to bigamy for those who, according to anterior laws, had adopted civil marriage.

Mgr. Paul, the liberal Bishop of Panama, exercised at the time a dominant influence at Bogota.

Such abuses of sovereignty are to-day inconceivable. It is easy to understand what violent reactions they cause in these regions. The Central American insurrections are merely belated forms of the religious wars which covered Europe with blood during the sixteenth century.

The insurrection which broke out at the arrival of Mgr. Paul to Bogota had caused the garrison of the Isthmus to be reduced. An insurgent chief, Prestan, an Haitian mulatto by origin, took Colon during the month of March 1885. In order to recover Colon a part of the garrison of Panama was sent thither on the 31st of March.

The revolutionists, who, under the orders of Aizpuru, had assembled in the forest near Panama, made preparations to take advantage of these circumstances. On the 1st of April two bloody battles were fought, one at Colon and the other at Panama. At both of these points the attacking party won the victory. On the evening of that day the political conditions in the Isthmus were exactly reversed. Panama was in the hands of the revolutionists, while the Government troops were holding Colon.

The Capture of Colon and the Burning of the Town

But loss of human lives was not the only consequence of the disturbance. A violent battle raging in a town containing only wooden houses, has for an inevitable consequence the destruction by fire of the whole place. Colon was completely burnt down. Its houses, its stores, its wharves disappeared with all their contents.

Fortunately the Company's town, Christopher Columbus, was protected by the courageous efforts of our people and also by a narrow strip of ground that had not been built over and which separated it from Colon.

The fire stopped at the very gate of our establishment. This catastrophe had taken place in view of three American Ships of War. They had been sent to Colon in order to maintain the peace, which the United States had bound themselves to ensure in virtue of the Treaty of 1846. The passivity of the American troops caused an immense sensation. Captain Kane, the commander of the *Galena*, whose responsibility was involved for not having taken action was bitterly criticised. He was considered as having failed in his duty. The American Government immediately sent Admiral Jouett whose first act was to appoint a board of inquiry.

This established that in the eyes of the American authorities the obligation resulting from the 1846 Treaty was to prevent by force of

arms all conflict on the railroad line. But other events were soon to happen, which were again to demonstrate this view.

As soon as General Aizpuru took possession of Panama he seized one of the best tugs of the Canal Company and sent it to Buenaventura, 360 miles south of Panama. He intended to open negotiations with the Colombian authorities.

The Colombians put Aizpuru's emissary under arrest and seized the tug.

It seemed as if it had been sent to them by Providence, that they might haul to Panama a dismantled sailing ship which they filled with troops.

Aizpuru put the town in a state of defence in order to resist this invasion.

This time the American authorities saw where their duty lay, and they fulfilled it.

Troops were disembarked and Panama was occupied by a military force on the 24th of April.

Aizpuru was arrested and compelled to sign a declaration by which he bound himself not to fight in Panama.

The American troops immediately withdrew, leaving the revolutionists in authority, but the wharf was kept under military guard. When the Government troops arrived from Buenaventura they were politely forbidden to disembark. It was on the 28th of April, 1885. General Aizpuru was wise enough not to strain too much his curious privilege of a revolutionist protected by American soldiers in compliance with a treaty. Probably urged by those whom circumstances had made his forced protectors, he consented to sign a capitulation. He surrendered to General Rafael Reyes, Commander-in-Chief of the national army of Colombia.

Connection between the Events of 1885 and of 1903

The odd situation which had thus been developed under my eyes remained engraved in my mind. Eighteen and a half years later, this recollection inspired in me the idea which cut the complicated knot with which Colombian despotism and avarice was throttling the Isthmus.

The Colombians cherished the culpable intention of getting hold, by hook or by crook, of what remained of the French enterprise, and thereby of laying hands on the forty million dollars which the United States were willing to pay to its legitimate owners. This abuse of sovereignty could be corrected only by force. But the Isthmus was too weak to make a revolution by itself. I found in 1903 the solution of the tangle, by reproducing artificially the conditions of things which

had, in 1885, been the natural and spontaneous outcome of the circumstances. I brought about the condition of affairs which obliged the United States, in virtue of the Treaty of 1846, to protect the revolutionists as they had done in 1885 under the automatic pressure of facts.

It is a singular thing that the Envoy Extraordinary of Colombia to Washington in 1903, was the same General Rafael Reyes. He came to Washington in the hope that he could induce the United States to swerve from their duty.

He was the Plenipotentiary of Colombia, whilst I was the Plenipotentiary of the new Republic of Panama. This new Republic had had its origin in the recollection of the event of which we both had been witnesses on the Isthmus in 1885, that is to say, the protection given to a revolution against Colombian rule by the United States in execution of the Treaty of 1846, with Colombia's predecessor, New Granada.

Enormous Increase of my Responsibilities after Six Months

When the insurrection was about to end, the Engineer charged with the first third of the canal, the Colon division, resigned. His relations with the Engineer-in-Chief had always been strained. One evening during a dinner at M. Dingler's house, the host gave way to resentment and spoke harsh words, without serious motives, in addressing his subordinate.

The public scandal resulting from this quarrel could have but one issue, compatible with the dignity of the high official thus addressed: he left for France.

To find a substitute for him was difficult. M. Dingler asked me if I was willing to add the first division to the third one then under my charge.

Profound disorder reigned at this moment in Colon. The fire had destroyed the town, its warehouses, its wharves. An enormous quantity of machines was arriving for the Company, and their unloading was impossible. The administrative division which had charge of these operations was unable to cope with the difficulty. "I accept," said I, to the Chief Engineer, "but under one condition: I must be absolute master at Colon. To that end it is necessary to add the control of transports and maritime operations to the control of construction. The situation demands that the entire power at Colon should be concentrated in one hand."

M. Dingler assented to my suggestion, and from the month of May I had to command two divisions of works, the construction of two-thirds of the Canal and the administrative services of Colon as well.

This crushing accumulation of duties was accepted by me with veritable delight. It was an unceasing and constant labour which during five months did not permit me to obtain more than two hours' rest per night. I devoted my days to the Colon services, my nights to those of Panama. Outside of the gigantic works which were executed or being organised I had to tackle, without wharves, the problem of unloading of the ships chartered for the Company. There were nine of them riding at anchor in the bay when I arrived. Others were on the way. Never for an instant did my health or my nerve fail me. The forces of youth are without limit when they are enthusiastically devoted to a noble task.

Ravages of the Yellow Fever: Influence of Moral Energy

Meanwhile death was constantly gathering its harvest all about me. Never had the yellow fever been more deadly. Some fathoms only from my house at Colon, ships were anchored in the Company's harbour without a single soul on board. All the crew had died. I still recall twelve English sailors in full uniform whom I saw assemble before the Doctor's office. They were asking for tickets of admission to the hospital. Eight days afterwards they had all died.

I was able at the time to perceive how much the disdain of peril increased the force of resistance, and what an opening to the fatal disease intense emotion could create.

I had, on my arrival in Colon, a striking example of this fact. The chief accountants of the two divisions placed under my orders were intimate friends. They had come together to the Isthmus, they lived in the same house and ate at the same table. One of them was an irreproachable character, while suspicions clouded the other's reputation. Public rumour, when I arrived, imputed to him certain reprehensible acts. They concerned the payment for some heads of cattle bought for feeding our workmen, when the interruption of the train service by the insurrection had nearly caused a famine in Colon. People spoke of fraudulent payment to the purveyors with the complicity of the accountant. A rapid inquiry strengthened the accusation in my mind. I ordered the incriminated man to appear before me on the following morning at seven o'clock. His no doubt heavily burdened conscience, as well as the certainty of finding no mercy from me for a breach of honour, so troubled him that he fell ill with fever and was taken to the hospital.

Eight days later he was carried to the cemetery. His comrade and friend, who ignored the cause of his disease, was terribly frightened when he left him to go to the hospital. "If he dies," said he, "it will be my turn next." It happened exactly as he had foreseen.

Many a time I went to see the ships as they arrived from Europe filled with employees. Many a man of them had been happy to enlist, but felt his heart sink at the sight of the warm, low and misty shores of the deadly Isthmus. Some bore on their faces the obvious mark of terror. I often took note of their names to see how they would stand the trial. Without exception they were dead within three months, if they had not fled from the Isthmus.

For every eighty employees who survived six months on the Isthmus one could say that twenty died. The proportion between the number of deaths and the number of arrivals was obviously much smaller, because more than half of the employees left very soon after their arrival.

During the period of the Couvreux-Hersent contract, M. Reclus, the Agent-General of the Company, stated that nineteen deaths occurred from the 28th of January, 1881, to the 1st of February, 1882. This meant a proportion of eleven per cent. between the deaths and the arrivals, as 180 employees reached the Isthmus during the said year.

If these constant dangers depressed the feeble-minded, they, on the contary, exalted the energy of those who were filled with a sincere love for the great task undertaken. To its irradiating influence was joined the heroic joy of self-sacrifice for the greatness of France.

How I discovered the Key of the "Secret of the Straits"

On my arrival at Colon I found myself face to face with a great difficulty, the solution of which gave me the key of the technical problem of the Isthmus. It was, as I shall explain later on, the key to the great mystery of past centuries, the key of the *Secret of the Straits*.

There is a saying among engineers that "it is the dredge which has made the Suez Canal a possibility." It is indeed true that if the works of Suez had been prosecuted as they had been undertaken—that is, with a large quantity of hand labour, they would have most probably failed.

Lord Palmerston, in order better to stifle what he called an abominable swindle, forced the Khedive to stop the *corvée*, the compulsory method which gave to the Canal a generous supply of labour. It became indispensable to change the system of works. MM. Borel and Lavalley, two French contracting engineers, offered to dig the canal without human labour by the employment of floating machines—that is to say, of dredges. The engineers in charge of the Canal were obliged to accept what most probably the instinctive horror of new ideas would have made them reject without Lord

Palmerston's providential maliciousness. The dredges made that miracle the Suez Canal. That is, by the way, the origin of M. de Lesseps' love for contractors and of his dislike for engineers. We have seen how he fell a victim to his own confidence in the so-called "practical spirit" of certain contractors at the beginning of the Panama enterprise.

Despite a glorious victory everywhere else, the dredges were shamefully beaten in the twenty-five last kilometres of the Canal, between the Red Sea and the Bitter Lakes. There the under-bed was rocky. The dredges which had been excavating 2500 cubic yards a day could not extract two hundred. M. Borel, no more an ordinary contractor than M. Lavalley, both being graduates from the *École polytechnique*, arrived in haste to study the difficulty. He remained a fortnight at the top of a dredge, looking at its work and thinking. One day when he came down he ordered the removal of the dredges, the construction of earth dams at each end of the cut, the pumping out of the water, and the continuation of the excavation in the dry, down to the bottom of the Canal.

Since then dredges have been thought to be powerless before rock.

When the Panama Canal was begun everybody said: "If it were only possible to dredge the Panama Canal. Alas! the whole central mass is of rock, of soft rock, it is true, but it is impossible to dredge all the same. The dredges can serve no purpose outside of the Chagres valley and the low valley of the Rio Grande, where the ground is soft."

As soon as I arrived in Colon I was confronted by the same problem which thwarted M. Borel.

The excavation by dredges of the low Chagres valley had been granted to an American contracting company. This company had brought powerful dredges requiring a depth of water of nine feet. One of these fine apparatus had just arrived and was ready for work when I came. The work which it was destined to accomplish was the cutting of the Canal between Colon and the Mindi Hills, a distance of six kilometres.

To reach its place of work the dredge had to pass through a part of the Canal already excavated to a depth of seven feet by the small dredges brought by Couvreux and Hersent. The dredge began to cut the channel deeper, but it had to stop. A bank of rock constituted the bottom of a part of the Canal already opened, and it could not be attacked by the dredge. The contracting firm was paralysed, but remained to a certain degree indifferent. The stoppage of the dredges by such obstacles was compensated for by the Company which had to pay excessively heavy damages when work was stopped for such a cause.

It was absolutely necessary to solve immediately this exasperating difficulty.

"Why," said I to myself, "is the rock considered so impossible to dredge? Is it not because up to the present time no attempt has been made to render the rock dredgeable? If it were all broken up, in a perfectly homogeneous manner, into small pieces not larger than paving-stones the dredges would certainly excavate it."

My thought reverted to an experiment I had made a couple of years before, as officer of military engineers, at Arras in France. We were making with a mining-bar, through the sandy clay of a field, a vertical hole about two inches and a half in diameter and three or four yards deep. In that hole was introduced three continuous rows of dynamite cartridges. After the explosion the hole was transformed into a perfectly regular vertical cylinder of two feet diameter. The constance of the diameter all along its length showed the homogeneity of the dynamite's action.

"If I reproduce this experiment in rock," said I, "of course there will be no cylinder formed, the rock being incompressible. But there will be a regular fissuration of the rock all along the hole. If I place these holes at a yard distance all the mass of the rock will be regularly disintegrated and reduced homogeneously into pieces of the dimensions of a man's head more or less. Then the rock will be made dredgeable."

I immediately resolved to carry out this conception. I ordered rafts to be constructed. On them miners made through the water with mining-bars, the necessary holes through the rock underneath. Some days later the rock bank was crushed entirely by the dynamite exploding in the hundreds of the symmetrically disposed holes.

The dredge brought immediately to the spot worked without heeding whether it was rock or soft ground that it was attacking.

The new method had met with complete success. The cost of the under-water rock excavation was reduced to that of the open-air rock excavation even with the rudimentary method I had employed. It was later on bound to become, not only equal to, but cheaper than, the open-air rock excavation. From that day onwards that difficulty was over. The presence of rock no longer prevented the use of the dredge. It could no longer be said that it was ten times more costly to excavate below water than above.

I had given to the dredge the complete mastery of its field of action. The consequences of this step forward were to be of incalculable importance. It led to the upsetting of all conceptions as to the transformation of a lock canal into a sea-level canal. It encouraged engineers to tackle a problem with which for years they had been unable to cope: the deepening of the Suez Canal between the Bitter Lakes and the Red Sea, in the section where M. Borel's dredges

had failed during the construction, on account of the rocky nature of the soil.

Strange Passive Resistance of the Technical Mind

This new principle, in spite of the striking results obtained, thanks to successive improvements, did not easily penetrate the engineering mind. In 1901, some sixteen years after its invention and application, the Isthmian Canal Commission, in their comparative report on Panama and Nicaragua, inserted in their list of standard prices: removal of soft rock per cubic yard $0·80, removal of hard rock per cubic yard $1·15, removal of rock under water per cubic yard $4·75.

In 1905 I called the attention of the International Consulting Board, to whom had been entrusted the selection of the type of canal, to this question. It was an essential point for the project which I submitted to them: "The Straits of Panama." They refused to admit what was established by experience. They closed their eyes to the official figures resulting from works that had recently been carried out in the Suez Canal.

They admitted a standard cost of $2·50 per cubic yard, a price ten times greater than the probable reality.

Finally, in the report of Colonel Goethals, dated August 20, 1909, can be found the two following contradictory statements. Speaking of an excavation largely in rock, he says, as though he were enunciating a proven law: *As the material can be removed more cheaply by the shovels than by dredging* . . . etc. On p. 57 of the same report, it is stated that the excavation of earth and rock in the dry, adopted accordingly, has cost fifty-five cents per cubic yard. But the unit cost of excavation in the wet by dredging in a place near by with my old method of 1885 and with a dredging plant of the same age, is given both for rock and earth. It results from these figures that if it had been applied, the cost in the wet would have been fifty-three cents instead of fifty-five in the dry.

With an up-to-date plant it would have been twenty-five instead of fifty-five cents.

So much the worse for the facts when principles are immutable.

This futile reluctance to admit experimental truth would matter little if it did not lead sometimes to formidable consequences, as indeed it did later on. It is interesting to dwell on this in order to enable people to comprehend what obstacles progress finds in its path.

My Discovery Frees the Future of the Canal

I was overjoyed when I had, in 1885, proved this new and essential method. From that day on, the future of the Canal became clear.

It gave me an unexpected and secure line of retreat in case the execution of the sea-level Canal was to be demonstrated as impossible, within reasonable limits of time and money. Its formula could be expressed as follows : " Construct a lock canal first and transform it later into a sea-level canal, by dredging."

This was my conception of the problem from that moment onward. It is this conception which has finally triumphed in spite of all resistance.

While I was thus engaged in these multiple occupations, M. Dingler, who was nearly exhausted, left, in the middle of the summer, to take a well-earned rest in France. He sailed alone, heartbroken, having sacrificed to the great enterprise all those whom he loved best. He was never to see the American Continent again. His place was for some weeks occupied by M. Hutin. Of the four men who in November 1884 formed the head-staff of the Company, only two remained. In September 1885 only one was still there—myself. M. Hutin had some very bad attacks of fever which constrained him to leave the Isthmus.

I ASSUME THE ENTIRE MANAGEMENT WHEN I AM TWENTY-SIX

I assumed the general management of the Company scarcely two months after I had completed my twenty-sixth year.

Far from feeling weighed down by this new high responsibility the burden positively relieved me.

Up to that time I had been in fact the head of two-thirds of the Canal, but I had to obtain the approval of the Chief Engineer for my decisions. Now I became my own and the only master.

My constant visits to the works had brought under my personal influence all the employees of the Company. Men's energies are spontaneously influenced by a chief who is inspired by a sincere faith in the ultimate triumph of a difficult undertaking. They take their place in regular order, like particles of iron around the pole of a powerful magnet. Everybody knew that I was pitiless for all moral shortcomings, and the sincere friend of those who were valiant and devoted. In a short time I managed to place at the heads of the divisions second-rank men whom I had taught worthily to occupy the first rank.

I traced the programme, which was to transform into a fact what had been up to that day a mere chimerical hope. I purposed to obtain an excavation of 1,400,000 cubic yards per month, from the 1st of January, 1886, on.

My first act when I assumed direction was to relax the tension which had hitherto existed with the American naval authorities. A small fleet had been stationed on both sides of the Isthmus ever since the insurrection. I experienced no difficulty in establishing friendly

relations with Admiral MacAulay on the *Pacific* and Admiral Jouett on the *Atlantic*.

Some days after M. Hutin's departure an important phase in the Canal history was opened.

Arrival of M. La Vieille on a Government Mission

M. La Vieille, former member of the Chambre des Députés, had been sent to Panama as Consul-General, with a special mission to inform the Government as to the situation of the Company. This was made necessary by the request of the Company to be authorised to issue bonds with lottery tickets attached to them.[1]

He arrived in the middle of October 1885. He was somewhat hurt to learn that M. Hutin, whom he expected to meet, had not waited for him and had just left.

Other causes had combined to irritate him. At the ports of call of Guadeloupe and Martinique he had been assailed by claims against the Company. Some weeks before a recruiting agent had brought over twelve hundred black labourers from the French Antilles.

These poor people, whose minds were still troubled by a confusion between slavery and manual labour, soon deserted the works and embraced an easier profession.

It was that of "sick workman." The refusal of our physicians to admit to the hospital people who were perfectly sound was denounced as a crime against humanity.

M. La Vieille, when his ship called at the harbours of the Antilles, had heard the noisy echoes of these protests.

For these reasons the mind of the new Consul-General was badly disposed to the undertaking.

After an exchange of courtesies, M. La Vieille gave vent to his latent irritation in the following terms: "You will allow me to express to you, sir, without throwing any doubt on the high qualities which must have justified your promotion in the eyes of the Company, how astonished I am to see a man of your age placed at the head of an undertaking of national interest, I might say of universal interest."

I retorted in the same tone: "You will permit me, M. le Consul-Général, to express in my turn my astonishment to hear a representative of the Government of the Republic speaking as you do. I had always imagined that one of the principles, one of the dogmas, of the Republican mind was to judge men only according to their intrinsic value. I thought that the standard was based on their effective

[1] Lotteries are prohibited by French law as a rule. Sometimes, however, laws are passed allowing the issue of bonds with lottery tickets attached to them for certain undertakings of public interest. This authorisation enables the borrowing of money at a lower rate of interest.

power of action, and not on any consideration of age, titles and decorations. I thought that to this dogma was due the sudden elevation above the ordinary level of humanity of men like Marceau, Hoche, Bonaparte, Gambetta, etc.

" Let us come back, M. le Consul-Général, to these principles which must not be abandoned. I cordially invite you to inspect in all its details the great undertaking of which I am the chief. You will then be in a good position to see whether the Company was right or wrong in putting me in the high position that I now hold. In the Company's defence I must say that they were not embarrassed by the question of choice. I am where I am because I alone have been able to withstand this fatal climate. Those who preceded me have disappeared."

The Consul-General abandoned his untenable position in order to take up the question of the atrocities of which the Antillian labourers were said to have been the victims.

" I decline to discuss the matter with you now," I said, " I wish you to be the sole judge. We shall go together to the works. If for each hundred labourers you find one from Martinique or Guadeloupe it certainly will be above the average proportion. After that we will pay a visit to the Panama Hospital. If, out of a total of five hundred sick men, you do not find four hundred hailing from these islands, you may be sure the proportion will be below the average. What, then, will be your opinion as to the inhumanity of the Company ? It will then behove you to express it officially, M. le Consul-Général."

Our first interview, as may be seen, was somewhat strained. However, the hostile sentiments of the delegate of the French Government soon vanished when he came in contact with the facts. His mind was predisposed to go to extremes, and he became a truly fanatical friend to me.

Twelve days after he had reached the Isthmus he had already reversed his opinion.

I had organised a series of excursions. With M. La Vieille and other prominent personalities I had invited Commander Lull, the most eminent of the American explorers of the Isthmus during the period of surveys of the American Government (1869–1876). I could show to the Commander how certain works he had declared impossible had turned out. The opening of a canal in the semi-fluid marshes near Colon, the digging of a stable channel in the bottom of thePanama Bay, which he had thought to be unrealisable, were accomplished facts. I took my guests as witnesses of the activity displayed under their eyes. The speeches delivered were reproduced by the local press and caused a little sensation in Paris. On October 27, when I presented the Company's employees to the Consul-General, his

answer to my speech was filled with a warm, patriotic feeling. He concluded in the following terms : " Allow me now, my dear M. le Directeur, to express to you publicly, my thankfulness for the flattering and sympathetic reception you have given to the representative of France. I find in your personality, M. le Directeur, in spite of your youth, the mature judgment which conceives, the energetic will which does things and ignores obstacles, all the qualities which characterise to a high degree the head of a great enterprise. Above everything I find the warm heart of a patriot, of a Frenchman, of a Republican."

The Canal Company in Paris was terrified by the thought that they were exposed to the reproach of entrusting the supreme direction of the Isthmus to a man of twenty-six. The speeches were printed in the Company's *Journal*, but the word " Ingénieur " was substituted for that of " Directeur."

Not only was the description false, but it was also absurd, and made the substance of the speeches meaningless.

It invariably happens that failure to meet a difficulty face to face lands one in greater difficulties.

Three months later, when M. Charles de Lesseps arrived on the Isthmus, I was the embarrassed witness of reproaches almost violently expressed by the Consul-General to the Vice-President of the Canal. He was indignant because the Company had not already taken the initiative of requesting the Government to confer upon me the Cross of the Legion of Honour.

Arrival of Two Divisional Engineers—their Deaths

The Canal Company had but a meagre notion of the work I had accomplished. They did not fully grasp how the firm direction given to the works was leading them to success. They saw their staff reduced to a single head, and they feared to see me at any moment succumb. It was resolved to send me two engineers, Chiefs of Division. MM. Petit and Sordoillet arrived in the last days of October 1885. The first was a man of middle-age. He had served several years on the auxiliary staff of the *Corps des Ponts et Chaussées*, created for the execution of the programme of great public works outlined by M. de Freycinet in 1879.

The other was a man of thirty-five, a graduate of the *École polytechnique*, a man full of energy, and familiar with works in semi-tropical countries.

After having sounded for a few days their respective abilities, I kept the older one at Panama and placed him at the head of the third division. I sent the younger one on the line for the second division.

This latter service still required important surveys and more physical activity than the other.

Scarcely a week had elapsed when a telegram was received announcing that M. Sordoillet had caught a violent fever. I immediately went to see him. I proposed to take him back in my train to the Panama Hospital. "Oh, M. le Directeur," he implored, "do not send me to the hospital. It seems as if it meant death for me. Take me back to your own house where you have already received me."

As I desired to reassure him I complied with his request. On the same day he was back again in his former room, which was next to mine and only separated by paper hangings.

The malady remained stationary during three days. The albumin in the secretions of the kidneys had not made its appearance. As its presence is one of the characteristics of yellow fever I was full of hope. Alas! on the evening of the third day, when I arrived home from an inspection of the works, I ordered an analysis to be made before me. A thick precipitate announced the terrible symptom. I went down to the drawing-room where about a dozen of my guests were awaiting my arrival. Everybody turned towards me, asking with anxiety about the sick man. "He is lost," said I, "we shall go to his funeral on Tuesday next."

My answer naturally caused consternation. I added: "We are, gentlemen, soldiers under fire; let us salute the comrade who falls in the battle, but let us think only of the fight of to-morrow and of victory."

I then launched the conversation on to another topic.

The mist of sadness which the news had formed about my guests soon vanished, and we sat down at table. Alone, among all present, M. Petit seemed inconsolable. I tried on various occasions to draw him out of his preoccupation, but without success. "The poor fellow," I said to myself, "is not yet accustomed to these emotions. He cannot stand the idea of this young, vigorous, intelligent man, who came in the same ship with him from France, being killed in less than a fortnight. A night's rest will bring him to his senses again." I left him to his sombre thoughts.

Unfortunately the night's rest did not cure him. On the following morning the disease exploded brutally. Sordoillet, as I had foreseen, expired on Tuesday. The evolution of the fever had taken as usual eight days. But for Petit the evolution was dramatically rapid. He expired half-an-hour before Sordoillet. Never to my knowledge had yellow fever acted so instantaneously.

It is to be sure a most remarkable example of the action of moral causes on the development of this terrible disease. To be sure the unfortunate man was struck by the news as if by a gunshot. He

probably considered that there was a close relation between his destiny and that of his friend and ship companion. They had together signed their contract with the Company, they had taken the same ship. He must have thought he was bound to die with him.

The same hearse took them both to their resting-place. Their arrival had not reinforced my staff.

It needed no reinforcement, because the contagion of my confidence in our success had taken hold of all my men. Everybody was endeavouring methodically to put everything in condition to attain the aim of my ambition, which was to excavate 1,400,000 cubic yards in the following January. One man who fell was immediately replaced by another, and the battle went on, however hard death struck or whatever the reactions of a rebellious and hostile nature.

Terrible Cyclone—Twenty Ships stranded—Heroism

The beginning of December was to bring upon us one of these sudden and terrible "reactions." On the 2nd of December a fierce storm raged on the Isthmus. Its violence increased in the night of the 2nd. The steamers fled from Colon harbour, which is dangerously exposed to northern winds. The sailing ships had no way of escape. They were dragged one after the other during the night towards the coast, and twenty were thrown on the reefs.

The steamer *Fournel* of the General Transatlantic Company, as well as the sailing ships, which together with her were inside the Canal harbour, were the only ones left undisturbed. More than fifty people were drowned.

Simultaneously the rain which had been falling heavily for several days turned to a deluge. I immediately ordered a train to take me to Colon, when, on the 3rd, I was notified that the situation was becoming very grave. It was the first great trial to which our works at Christopher Columbus had been exposed. This town was established on an embankment in the sea, an embankment which formed a kind of sea-wall protecting the Canal harbour.

Would the sea-wall resist the assault of such huge waves? After the fire of the previous April, which had razed the town of Colon, were we to see the adjacent town of Christopher Columbus, our own town, destroyed by water?

When I had arrived at about fourteen miles from Colon the train stopped. "Impossible to go farther, M. le Directeur," said the conductor, "the track is covered by the water."

"Go ahead slowly, as long as the water does not reach the fire," was my answer.

The train moved ahead and soon after emerged from the water,

only to find another flooded part which was also successfully negotiated.

I reached Colon at last. The storm was at the height of its fury, but could not damage our works. Our men made heroic efforts to save the unfortunate people in the boats wrecked on the coral reefs and washed by waves. One of them, the *Lynton*, was a dramatic sight. This English barque had been thrown upside down, and a human bunch of grapes clung to its side.

A lieutenant of the *Fournel* was drowned with two Canal employees in one of the incessant and unsuccessful efforts to rescue the unfortunate people.

The hero of the day was M. Espanet, a former officer of the French navy, one of the few who, like the great Admiral Courbet, were graduates of the *École polytechnique*. He was then Chief of the Christopher Columbus section. He succeeded, at the peril of his own life, in rescuing the shipwrecked crew of the *Lynton*. He found in Pierre Gouy, one of his subordinates, and in his men, heroic collaborators.

I am happy to mention here the name of George Espanet. He is one of the engineers who most brilliantly served the cause of the Canal, devoting to it without stint, their entire brains and hearts.

To him was due, later on, the success of the construction of the Congo railroad in Africa, the great creation of Colonel Thys, and of the Tai-Yuen-Foo railroad in China. He is now building a large railroad system in Brazil. The great works he has accomplished have not diminished the sorrow he feels in his heart when he thinks of the great battle fought and won over Nature at Panama, which the malevolence and stupidity of man has described as a defeat.

In the report I wrote to M. Ferdinand de Lesseps, on these tragic days, I concluded thus : " To give you, M. le Président-Directeur, the names of all those who during this catastrophe have shown their courage and devotion by exposing their lives, would prove a task I could not accomplish completely. Let it suffice to tell you that the men who have come here to defy all the dangers of tropical countries, for the realisation of the greatest conception of our days, have known, during these few hours of exterior peril, how to fulfil their entire duty as they are accustomed to fulfil it daily under conditions less spectacular but often just as trying."

At the same time the Vice-Consul of France gave, in the following terms, an account of these events to the Departments of Foreign Affairs and of Marine : " The French Colony and the foreigners have admired the generosity and devotion to a humanitarian duty of the employees of the Canal Company, at the head of whom was M. Bunau-Varilla."

A Coral Snake and Millions of Tarantulas

The morning of the 4th of December had seen the rescue of the last shipwrecked people who had remained alive. At that moment the power of resistance of our works had been conclusively demonstrated as well as the security of the Canal harbour. I had nothing more to do in Colon. On the other hand, telegrams arrived announcing a flood much more menacing than any that had occurred since the beginning of the Canal works. I could not go back by train to the spots newly threatened. The inundated points where my locomotive could pass on the previous day were now covered by fourteen feet of water. I resolved to go by boat. I ordered three Indian canoes to be loaded on the train, and I left with several engineers to reach the limit of the dry parts of the railroad, while another train was kept waiting for me on the other side. We got into the canoes when my train could go no farther. The tops of the telegraph poles scarcely rose above the water as we were navigating in a sort of canal cut through the virgin forest. The dense tropical growth seemed to form its lateral slopes.

From time to time the track emerged from the water, rose, and plunged again on the other side of the hill. It was necessary then to drag the canoes on the rails until the water was reached again. During one of these operations one of the canoes was broken to pieces. The whole party had to be embarked on two canoes. The load was much too great for each of them. The sides were hardly an inch above the water. Strict orders were given not to make the slightest movement as these little boats, devoid of keels, roll dangerously at the slightest change of equilibrium. Everybody had to remain motionless like a statue. An engineer, M. Philippe, a former artillery officer, had taken the seat in front of me. Out of courtesy he had sat down looking towards the rear and facing me. "I am quite afraid," said he laughingly, "for I cannot swim. If the canoe goes down I am a dead man."

I answered jokingly: "Oh, the danger is not great. I should swim with you to the trees, they are not far away." As I tried to appreciate the distance, I saw the strangest phenomenon.

On the general green colour of the tropical foliage a zone of about a yard above the water formed a marked contrast. It was black. As I looked more attentively to find the explanation I discovered that leaves and branches were simply concealed by enormous spiders of the *Tarantula* species. As these creatures are venomous, I instantly thought that my remedy in case of wreck was worse than the disease. I did not mention the fact to Philippe for fear of troubling him. I was marvelling at the intensity of the life concealed in the virgin forest. There were millions and millions of spiders chased by the

inundation, and I never had seen one before in my daily visits of the Isthmus.

Suddenly my thought was diverted from these considerations by wild cries from the negro who was steering the boat. "Knock it down, knock it down!" I could scarcely turn my head for fear of capsizing the canoe. I distinguished, however, a coral snake about two feet long swimming towards our boat, and very likely looking for a shelter. In an instant it had boarded the canoe and its head was in my left hand coat pocket, the rest of the body in the water.

There was a moment of violent mental struggle between the repulsion caused by the contact of the dangerous reptile and the need to avoid the slightest movement. Reason was stronger than instinct. Fortunately Philippe had his right hand on his folded umbrella, which he had placed along the side of the canoe. The body of the snake was passing across the umbrella to penetrate into my pocket. This saved the situation. "Keep very quiet, my good Philippe," said I in a low tone, "raise your umbrella very gently so as to lift the snake, and drop both in the water. The animal is looking for an island, satisfaction must be given to its wish."

Some instants later the snake was coiled round the folded umbrella as a worm on a stick. Then the umbrella was slowly lowered to the water and abandoned with its traveller. This disposed of a most dangerous companion, and the voyage ended without further incident.

First Scientific Measurements of a Great Flood

As soon as I arrived in Panama I wired to all the engineers, chiefs of the various sections, the necessary orders for a methodical gauging of this great flood. It was the first scientific measurement of this natural phenomenon on the Isthmus of Panama. The figures obtained completely confirmed those given by M. Dingler in his report of 1883. Later on other great floods took place, which were measured according to my standing orders. This did not prevent it being said and repeated, that the new company, which was born nine years later, was the first which paid attention to the floods and measured them.

Thus we emerged from this last ordeal of the deadly cyclone and of the great flood which ensued.

When all was over, I multiplied my efforts to wipe out every trace of the event, and to obtain the result, so long desired but never yet reached, of 1,400,000 cubic yards for the first month of the year.

This maximum result was to be attained when the Company most needed it.

In Europe, as well as in America, the most hopeless rumours were circulating. The disappearance of all the men but one, who were at

the head of the enterprise, had been interpreted as an abandonment. General confidence was at its lowest level just when I had given the maximum efficiency to the organisation. The Government of Colombia, stirred by these rumours, sent a special technical delegation to obtain an official statement as to a situation supposed to be desperate.

Its President, M. Ponce de Léon, was deeply moved when he witnessed the contrary of what he had expected to find. In a speech, delivered with solemnity at our last meeting, he said that nothing could express his admiration for the works carried out by the French :

" The only idea that I can give of my sentiments is that you are of the blood of those who fought at Lodi, at Rivoli, at Marengo, of those who can win victory from the impossible."

The French Government sends out a Special Mission

The French Government probably found a contradiction between the current rumours and the Consul-General's reports. They sent to Panama M. Rousseau, a high technical and administrative authority. This eminent man belonged to the Corps of the *Ingénieurs des Ponts et Chaussées*. He had entered political life and had been Assistant Secretary of State for the Department of Public Works.

When he left for the Isthmus he had been appointed a member of the Council of State. Later he was to sacrifice his life in the service of France as Governor-General of Indo-China.

He arrived on the 30th of January, 1886, with M. Charles de Lesseps and M. Boyer. The latter was coming out to fill permanently the situation which I had occupied *pro tempore*. He belonged to the same corps of Government Engineers as I. He was still young, but already famous. His superior talent had brought him the exceptional honour of the Cross of the Legion of Honour at the age of thirty. He had marked his brilliant career by the construction of the Garabit Bridge. Its metallic arch, 530 ft. wide at the base, is boldly thrown over the valley of the Truyère in the highlands of the Centre of France, 400 ft. above the water. Boyer's powerful mind had soon carried him beyond the limits of the engineering profession. He had been a candidate at the general elections of 1885. His party had been defeated. He had then turned back to his profession and sought there an object for his legitimate ambition. He had accepted the task of leading the battle against Nature on the Isthmus. At the very moment when he began to assume his functions the House annulled the elections in the department where he had been a candidate. The party to which he had belonged carried the new elections. Léon Boyer would have entered the political field, had not his first failure moved him away from those spheres towards the great enterprise of Panama. There he met, soon

after, a glorious death, and France lost thereby one of her most gifted sons.

I had known him several years before at Marvejols, where I had been sent as a student of the technical academy of the *Corps des Ponts et Chaussées*, to study the remarkable railway works Boyer was executing.

In spite of a difference of age of about ten years we became intimate friends.

One Million Four Hundred and Twenty-four Thousand Cubic Yards in January 1886

They had all left Paris in great anxiety fearing to find the work disorganised by death, cyclone and flood.

M. Charles de Lesseps could scarcely believe me when he heard my first words : " M. le Vice-Président,—The month of January offers you as a token of welcome an amount of excavation exceeding 1,400,000 cubic yards." I had, in fact, succeeded in nearly doubling the amount of excavation for January of the preceding year. It had been 720,000 in January 1885, it was 1,424,000 in January 1886.

M. de Lesseps, whom I thus met for the first time, must certainly have asked himself if this remarkable result was not merely temporary and unlikely to be repeated.

The scientific order, the active discipline which prevailed everywhere during his exhaustive visits to the works persuaded him that that was not the case. The amount of excavation for the following months was to confirm this impression. February 1,357,000; March 1,385,000; April 1,480,000, etc.

One of the things which surprised everybody was the cessation of all strain in our relations with the American authorities. They had been unpleasant and lacking in reciprocal good-will until I was placed at the head of the Company on the Isthmus. I had, as I have already said, soon succeeded in making relations easier. To make this cordiality manifest Admiral Jouett sent the band of his flagship to play before the Administration Building at Colon, during the first dinner at which M. Ferdinand de Lesseps was present, on the day of his arrival.

Visit of the Delegates of the Chambers of Commerce

The first group of visitors was soon reinforced by a more numerous one on the 17th of February. At its head was the illustrious President of the Canal Company, M. Ferdinand de Lesseps. With him came delegates of the Chambers of Commerce of New York, Bordeaux, Marseille, Saint Nazaire and Rouen. Many persons of great prominence

had joined them, among whom were the celebrated economist Molinari, the old Duke of Sutherland, Admiral Carpenter of the English navy, Colonel Talbot of the English army.

The representative of the New York Chamber was Mr. John Bigelow. He had come with his charming daughter, Miss Grace Bigelow. It is there that began my long friendship with the former Ambassador of President Lincoln to the Court of the Tuileries. This friendship was only ended in 1911 by the death of Mr. Bigelow, who succumbed in his ninety-fifth year in full possession of his admirable mental faculties.

The population of the Isthmus gave an enthusiastic reception to M. de Lesseps. The visitors could not sufficiently admire the splendid display of creative force made by these twelve to fourteen thousand men working in co-ordinate activity with a countless number of machines of all kinds.

I exploded a mine of 25,000 cubic yards. To make its importance more tangible I offered to M. de Lesseps a little cube representing the thousandth part of one-millionth of the little mountain which he had seen raised in the air by the explosion. Later on this little cube was presented to the Academy of Sciences by M. de Lesseps with the description I had made of the mining method employed. It was on March 26, 1886. The President of the Canal Company concluded the description by the following words: "M. Bunau-Varilla, who directed this operation, the success of which was complete, is a young engineer of great distinction, who collaborates with M. Boyer in the execution of the Canal."

This was the only public expression of gratitude which the Canal Company thought fit to address to me for the services I had rendered to the undertaking during this extremely anxious period of its history.

I had long been surprised at the extraordinary disproportion between the warmth of the compliments which were expressed to me verbally, and the silence maintained on this subject by the official organ of the Company.

I think this was due to the kind of religious admiration which M. de Lesseps inspired in those who were in personal contact with him. Any homage paid to any other personality but himself seemed to steal a ray from his crown of glory. If that was the true reason, it was a great mistake to have made. In such difficult campaigns, one of the conditions of success is to extol the personality of those to whom great results are due. In so doing you throw a prolific seed for generating similar services. It is this principle which has constantly inspired all veritable leaders of men: Ferdinand de Lesseps was such a leader. The excess of almost religious devotion of those who surrounded him, led them to fall into an error which he never would have tolerated had he been twenty years younger.

M. Rousseau proposes me for the Order of the Legion of Honour

For the first time, I believe, since the creation of the Legion d'Honneur by Napoléon the First, an engineer of the *Corps des Ponts et Chaussées* was proposed for the Cross of the Legion of Honour, three years after he had left the Technical Academy of the Corps. M. Rousseau, delegate of the French Government, did me this very exceptional honour. His proposition was not carried out until the following year. This temporary check brought a compensation to which I attach an inestimable value. When informing me he had not obtained the cross he had asked for, M. Rousseau concluded in the following terms :

"I shall be happy to take any opportunity to bear further witness to the situation you had conquered on the Isthmus in the eyes of the foreigners as well as in those of the employees of the Canal, and of *the honour which has resulted from it for our Country and for the Corps to which we both belong.*"

The eminent Chief Engineer of the *Corps des Ponts et Chaussées*, representing the French Government, stated in this double quality, that I had honoured my country and the Corps of which I was a member.

This statement was worth to me any decoration, and counterbalanced the surprise which the silence of the Company had caused me.

During this period of visits, that is from the 30th of January to the 3rd of March, 1886, Boyer was nominally the only "Directeur," but I continued virtually to exercise the chief authority. His astonishment at the greatness of the results obtained and of the difficulties overcome was without limits.

After some weeks he said to me : "I believed when I left France that nothing had been done here, but I find you have done all that could possibly be done. I believed there were here no employees worthy of the name. I have, therefore, brought sixty new engineers with me. They are picked men, men I knew personally, men I had tried and found to be first-class men in France. What service do they render here ? None at all. They are sick, dead, or gone. I find of value here only the men I met here on my arrival and whom I thought were valueless. What an intense surprise for me is that ! "

I answered : "Do not be astonished. Among these new employees which you now condemn, a proportion of 15 to 20 per cent. will resist the terrible elimination which Nature determines here. The rest will be scattered or will die. Those who will have resisted the trials of life on the Isthmus will be like those you found already here and whom you admire."

Physical Breakdown: Attack of Yellow Fever

To the cares of general direction which I still had to assume were added, during this period, those of the hospitality extended to a considerable number of guests, and at the same time those resulting from a radical transformation in the administration of the works. The Company had just decided to substitute large contracting firms for the small contractors among whom the excavation of the Canal had been distributed. This entailed the cancelling of many small contracts, and required much diplomacy and a considerable amount of discussion.

When the *Washington* raised anchor, taking away MM. Ferdinand and Charles de Lesseps with the delegates of the Chambers of Commerce life became more normal. Léon Boyer, already instructed by more than a month of constant community of ideas with me, took the rudder with a firm hand.

As soon as the enormous responsibility, which I had so long carried with ease, had disappeared, an instantaneous reaction took place within me.

The strenuous efforts which I had made, the excessive calls on my vital resources during the terrible campaign which was just ended, had exhausted me body and mind. I felt the change only on the day when the life of the Canal ceased to be dependent upon the preservation of my own.

I asked myself: "How many days more can I still hold out?" I decided that I might perhaps last sixty days more, and that space of time was about necessary to transmit to Boyer all the delicate threads of the gigantic organisation.

I could only hold out half of the time. Towards the end of March 1886 I was suddenly awakened by a violent vibration of my bed which I thought due to a seismic movement. I soon discovered that I was really the origin and centre of the movement.

Yellow fever had just taken hold of my weakened frame.

After having been considered as lost, the fever decreased and it was thought that I was saved. But it was only an illusion. I was in reality, as so often happens, hurrying towards a fatal issue.

The physician, very glad to see the normal work of the organs re-established, and the fever vanish, said: "You are doing very well now, M. le Directeur."

"Oh," I answered laughingly, "I am doing as well as a man can do when he approaches Monkey Hill!" (Cemetery of Colon—now Mount Hope!)

"Why do you say that, M. le Directeur?" retorted the astonished doctor.

"It is extremely simple, my dear sir," I replied: "I have been

making a very simple little arithmetical calculation during the last three days. At the start my pulse was sixty per minute, the following day it had fallen to fifty, yesterday to forty, to-day to thirty. My pulse follows a decreasing progression of ten pulsations per day. In three days it is you who will observe that the number of pulsations is zero, as by then I shall not be able to make any more observations myself."

This joke probably saved my life. The doctor's attention was attracted to this increasing debility. He made me take a quantity of brandy, a wonderful remedy when you are, as I was, an habitual abstainer. The doomed man came back to life for good, after having twice shown certain symptoms of approaching death. I had thus the honour of inaugurating a period of yellow fever somewhat less deadly than before. Up to the time of my illness no case of yellow fever, as clearly characterised as mine, had ended otherwise than by death. Most probably the venom transmitted by the first *Stegomyia* mosquito had been of an extremely virulent type.

I had received the involuntary inoculation in a slightly milder form. This continued, as the mortality after my case fell from 100 per cent. to about 85 per cent.

Throughout my illness, and most likely on account of my depressed physical condition, I was the victim of a medical stratagem. The physician very well knew that the symptoms of yellow fever were just as familiar to me as they were to him, because I never missed a day visiting the patients in the hospital, when in Panama or in Colon. Since in a case of yellow fever it is strictly prohibited to administer quinine he gave me tablets of false quinine to mislead me as to the nature of my illness. My mind, once struck by this fact, was unable to see the contradictions between the medication and the very clear and obvious symptoms of the illness.

At last I could be transported on board a steamer bound for New York. It was only at the moment when the ship was lifting anchor that I learned the real colour of my fever. Boyer came to embrace me cordially before I left. Alas, I was never to see him again! Less than a month later he was attacked in his turn; but, less fortunate than myself, he succumbed.

The Dog "Bravo," Manager of the Works

With Boyer came also a humble friend to whom I feel bound to devote a few lines. It was Bravo. Bravo was a four-pawed friend, the most remarkable dog it has ever been my lot to meet.

This dog seemed to take an extraordinary interest in the works of

the Canal. During the trips along the line he stood with his forelegs on the railing of the inspection car. His eyes never left the works for a moment. He was always the first to jump on the locomotives, on the steams hovels, the first to climb the ladders of the dredges, and to reach a place of observation which no engineer could have chosen better.

Like the Directeur, Bravo used to go every day to the hospital. Knowing that under the tropics muscular work is to be avoided, he never went to the hospital save in a carriage. He had observed that half a dozen cabs were reserved for the transportation of physicians, chemists, sisters of charity, etc. When he chose to take his daily visit to the hospital he went first around in search of one of the Company's cabs. As soon as he discovered one, he barked to the coachman, who immediately stopped to allow him to jump on the front seat.

His sense of hierarchy was not less astonishing. When M. Dingler was " Directeur-Général " he lived in his house. As soon as M. Hutin replaced him he migrated to where this gentleman dwelt. He never left me when I took the general direction. But his assiduous attention to me seemed to vanish suddenly when M. Charles de Lesseps put his foot on the Isthmus. From that moment Bravo treated him as if he had been the only master he had ever known.

When M. Ferdinand de Lesseps arrived with many other guests the Company's houses were overcrowded, and I had some difficulty in finding a suitable lodging for our President. I asked the Bishop of Panama to do me the service of extending the hospitality of his palace to M. de Lesseps. He cordially acceded to my request. On the first night as I took M. de Lesseps to his rooms, my astonishment was great to see Bravo taking up his night-quarters before the door of the President's room. He probably never had been in the Bishop's palace before, and had only seen M. Ferdinand de Lesseps for two or three days.

Those who have read *Captain Hatteras*, and recall the curious physiognomy which Jules Verne has outlined in the " Dog Captain," will excuse me for thinking that I have met his reincarnation in Bravo.

" Are you a Relative of the M. Bunau-Varilla who has just died ? "

I thus bade good-bye to my friends. I was leaving the Isthmus which had seen so many efforts, struggles, and sorrows. I was leaving also with the happy feeling that I had, indeed, rendered a service to the great undertaking, that my endeavours had not been fruitless, and that the Canal had made an enormous stride forward.

After reaching New York I took the *Labrador* to return to France,

on the 17th of April, 1886. A great number of visitors had come to see the celebrated Lieutenant Greely. He had taken passage on the *Labrador*, scarcely recovered from his dramatic expedition in search of the North Pole, from which he was rescued after eighteen months' cruel sufferings. My sickly appearance made all these people believe I was Greely. But when my name became known somebody politely asked me if I was not a relative of the M. Bunau-Varilla, "who had recently died at Panama." The confusion was soon explained. My interrogator was M. Patenotre, a brother of the French Minister Plenipotentiary to China, who afterwards became Ambassador to Washington, and later to Madrid. He was himself in the French Diplomatic Service and was returning from China to France. About three weeks before he had passed over the Panama Isthmus with a friend coming also from China. Both had called on me. I had given them the necessary facilities to visit the works and had invited them to come and see me at Colon three days later.

But in the meantime I had been seized by the yellow fever and never knew when they came. Soon after, M. Patenotre parted from his companion and left for New York. The other tourist remained some days longer on the Isthmus to take a boat for Venezuela. As he was about to leave the Isthmus the news was spread that I had just died. He wrote before leaving to M. Patenotre, who was to remain some days in North America, and announced, as the latest news from the Isthmus, my death.

It so happened that M. Patenotre had just received the letter as he was going on board the *Labrador*. Great was his surprise when he read the name of Bunau-Varilla on the passenger-list.

He was struck with the resemblance I bore to the man whose death he had just learned, and that is why he asked if I was a relative of his.

Death of Léon Boyer at Panama at the Moment of my Arrival in France

After a long voyage of thirteen days the *Labrador* arrived at Havre. I reached Paris the same evening. For the first time since more than a year and a half I opened a French paper which was not several weeks old. It was the *Temps*. The very first line on which my eyes happened to fall announced the death of my friend and successor, Léon Boyer. He had died on the 5th, another victim of the Isthmian minotaur.

The circumstances which preceded his death read like a ghastly chapter of one of Hoffman's tales.

Among the contracting firms which had undertaken large sections of the Canal construction was that of Baratoux, Letellier and Lillaz. One only among the heads of the firm had been willing to assume the

direction of its works on the Isthmus; that was M. Lillaz, an engineer who had successfully carried out important works in France. His firm was to take up, besides the works in the upper Rio Grande valley, the dredging works in the Panama Bay, which I had begun a year before, and which ever since the Company had regularly carried out with their own employees. There was, of course, no difficulty for the new firm in substituting itself for the Company where organisation was complete. The price stipulated in the contract was very liberal, and left a large margin of assured profits. The task was not so easy for M. Lillaz in the high valley of the Chagres, where nearly everything had to be organised. He met there a thousand Isthmian difficulties, and became both greatly irritated by these unexpected obstacles and also felt bitterly the jealous criticisms aimed at him for the easy profits he was acquiring on the dredging works. These prices had been purposely fixed liberally, in order to help the contractors to stand the sacrifices which the organisation of the new works was to entail. Meanwhile one of the great dredges, working in Panama Bay, had caught an anchor buried in the soil. This anchor, when raised by the dredging chain, cut the hull, and the dredge was very nearly sunk. With great difficulty a disaster was avoided. The disabled dredge could be beached at a proper place and undergo repairs during the low tides.

Lillaz claimed from the Company reimbursement of the expenses and losses caused by the unexpected obstacle met by the dredge. Boyer dryly answered that the prices included all risks arising from any accidents, and that they had been fixed sufficiently high to exclude any claim of that sort. Lillaz, already unbalanced, morally by his technical disappointments, and physically by the climate, bitterly resented Boyer's answer. He saw in it an offensive meaning which was never intended. He believed that Boyer, who had himself prepared the contract and fixed the prices was, in a cowardly way, echoing the wicked rumours of his jealous enemies. A sudden attack of yellow fever overpowered him. The worse his condition grew the greater was his irritation against Boyer. Just before he died he dramatically summoned Boyer to appear with him before the Supreme Judge within eight days.

Boyer was greatly affected by Lillaz's death. He had a profound esteem for his character, having made his personal acquaintance when coming from France on the same steamer. By bad luck, owing to some unexpected delay in the church ceremony, the burial was delayed. When the hearse and its followers arrived at the cemetery it was night, a very dark night. The mourners had to feel their way, and stumbled over tombstones to reach Lillaz's last resting-place. The last rites were performed in the darkness. The sorrow caused by the

loss of a distinguished comrade was supplemented by the sense of the ghastly surroundings.

When Boyer, shivering with damp and distress, was regaining his carriage, a friend told him the story of Lillaz's last moments and the rendezvous he had given him.

On the following day Boyer was seized with yellow fever. He died like a hero. In the midst of his agony he wrote, "Do not abandon Panama." It was the last word from the great engineer.

CHAPTER VI

THE SOLUTION IN THE MIDDLE OF 1886 OF THE HITHERTO INSOLUBLE CULEBRA PROBLEM

AFTER my return to Paris I soon recovered my physical equilibrium. My first preoccupation was to decide what was most pressing to be done in order to promote the successful progress of the Canal.

CULEBRA APPEARS IN 1886 TO BE AN INSOLUBLE PROBLEM

The situation could be summed up thus. All was regularly organised, and the initial impulse had been given all along the line; two points only remained obscure: the Culebra Cut and the dredgings in the valley of the Chagres. The latter point was not as primarily important as the first. The life of the whole enterprise hung upon the Culebra question. Up to that time, the middle of 1886, nothing had succeeded there, the work by the Company's employees, the small contractors, had failed. The great contracting firm, the so-called Anglo-Dutch contractors, after one year and a half's fruitless endeavours, were in a state of complete financial and technical failure. Their works offered exactly the same hopeless aspect as in the preceding periods. During the dry season the works seemed to justify the best hopes. As soon as the first rains began, the dumps began to slide, the tracks were cut, and general subsiding of the ground inside the cut paralysed any movements of trains, and often overthrew the excavating machines.

The Culebra Cut proper is, as I have said, just one geographical mile long.[1] If we take its part above altitude 230 ft., which is that of the high Obispo valley, we find it is 1450 yds. long. If a man walks between the ends of this part, and follows the line of least elevation on the surface, the average altitude of this line is 277 ft. above the sea, therefore 307 ft. above the bottom of the sea-level canal. The highest point on this line was 300 ft. above the sea when the highest point on the axis of the sea-level canal was 330 ft.

[1] By the words "Culebra Cut" the French designated the saddle proper between the valleys of Rio Grande and Obispo rivers. Since the American works have begun the name of Culebra is applied not only to the saddle proper but to the cut in the valley of the Obispo and in the high valley of the Rio Grande. It is nine statute miles long.

In the middle of 1886—that is, four odd years after the beginning of the work—the average altitude of the line of least elevation above the bottom, say 307 ft., was only reduced by 12 ft. It was still 295 ft. above the bottom and 265 ft. above sea level.

Men and administrative methods had been changed three times. The result remained the same : a dismal failure.

It was therefore necessary to go farther and to change the technical method. Otherwise the canal might very well be completed on either side of the central mass but fail there. It was, I repeat, the life, the whole life, of the Canal which was to be staked on this one card : the successful excavation of Culebra.

One year before I had succeeded, for the first time, in the art of attacking rock by means of dredges. I was holding in reserve the provisional lock canal, to be transformed later, by dredging, into a sea-level canal, in case the impossibility of digging the sea-level canal directly in the dry should be demonstrated.

But a lock canal with a summit level higher than 170 ft. above the ocean level was out of the question. This meant that the bottom of the excavation had to be brought down at least to a level of 140 ft. above the sea.

With such a lock canal, the average altitude referred to was to be lowered from 265 to 140 ft., that is to say 125 ft. instead of a deepening of 295 ft. which would have been necessary with the sea-level canal. The difference was enormous, but, with an average lowering of 3 ft. a year, either solution was equally chimerical within a space of four or five years. The easiest lock canal was just as impossible as the sea-level canal with such a slow rate of excavation.

It was necessary at any cost to find a new solution and to ensure success at Culebra, or the entire undertaking would be forever wrecked.

My Hopes of overcoming the Insurmountable Culebra Obstacle

The minute and constant study of the conditions of the problem that I had made on the spot had revealed to me a new method. It inspired the hope that I should be able to conquer this impossibility.

I had remarked that the disorganisation caused by the rains always began at the dumps. As soon as they were cut and the unloading of the spoils was made impracticable, the excavators had to be stopped. It was then, and only then, that there began the action of the landslips in and out. They soon dominated the situation, for they could not be attacked.

If only the problem of the stability of the spoil-banks could be solved perhaps the slides in the cut might be successfully dealt with. The

battle could at least be conducted with the hope of a victory and no longer with the certainty of defeat.

The result would be largely dependent on will, persistency, and energy. The ruling word must be: "Advance quicker than the enemy, excavate quicker than the sides of the cut slide in." But in order to carry out this formula it was indispensable that the product of the work of the excavation should be quickly and surely eliminated. This was dependent upon the stability of the dumps.

The necessary elements with which to begin the fight with some hope of success were, consequently: first, a new technical solution insuring the stability of the dumps during the rainy season; second, a group of men determined to fight with Nature a battle ending in victory. The Panama Canal was sure to be made if victory crowned their efforts, to succumb if they were defeated.

I had long before prepared in my mind a technical solution ensuring the stability of the dumps. I had often tried to convince the Anglo-Dutch contractors that its adoption was indispensable. They were absolute masters of the choice of methods in the work. I was powerless to force upon them any solution. They did not comprehend the importance of my advice. They were frightened by the considerable outlay of money which my method entailed.

Cause of the Instability of the Dumps at Culebra

This solution was inspired by a singular observation. At every point of the Isthmus except at Culebra the dumps or spoil-banks were stable. Why was that? It was obviously a consequence of the soapy nature of the local clay. The products of the work of the excavators was an aggregate of lumps of plastic sticky matter. These lumps, when dumped, remained separated from each other quite as if they were pieces of rock. The spoil-banks, therefore, contained about forty per cent. of hollow spaces equally distributed in their mass.

The dumps at Culebra were, as in all other parts of the Isthmus, constituted in the following manner: first, a railroad line was established from inside the cut where the excavator was working until it reached the side of a convenient valley. There the side of the hill was excavated so as to establish a railroad line following the horizontal section of the hill. Trains were then brought on this line and their contents dumped on the hillside below. Little by little the hill under the railroad line was becoming covered by the dumped soil. When the new mass was thick enough the track was displaced parallel to itself, so as to get nearer to the crest of the dump, and so on.

When the dump had been regularly formed it presented the aspect

of a large horizontal terrace the sides of which plunged into the valley below. Above it was the hillside covered by the virgin forest to the top.

Why, as soon as the rainy season set in, did we see at Culebra these regularly disposed masses suddenly collapse and slide away with rails, ties and cars? Only one reason could account for this: the water and the special local nature of the soil. The rain-water that had fallen on the hillside above the dumps flowed down in broad streams. These streams were stopped by the platform of the dumps and filled the hollow spaces existing between the lumps of clay which formed the spoil-bank. They acted on this soapy clay and partly diluted it. After a little while the whole mass tended to lose its coherence and suddenly slid away transformed into a mud lake.

What was the remedy? The first idea was to establish at the foot of the hillside, above the dump, a drainage cut to prevent the water from above falling on the dump. This would be futile, as the weight of the spoil-banks always determined some movements of the hillsides as a result of which crevices broke these drainage cuts and prevented them from carrying away the waters.

It was obvious that all the conditions of instability would be reversed if, instead of disposing the spoil-bank parallel to the hillside it were placed perpendicular to it. Of course the establishment of the first railroad line could no longer be economically built by excavating a small platform for the track along the horizontal line of the hillside.

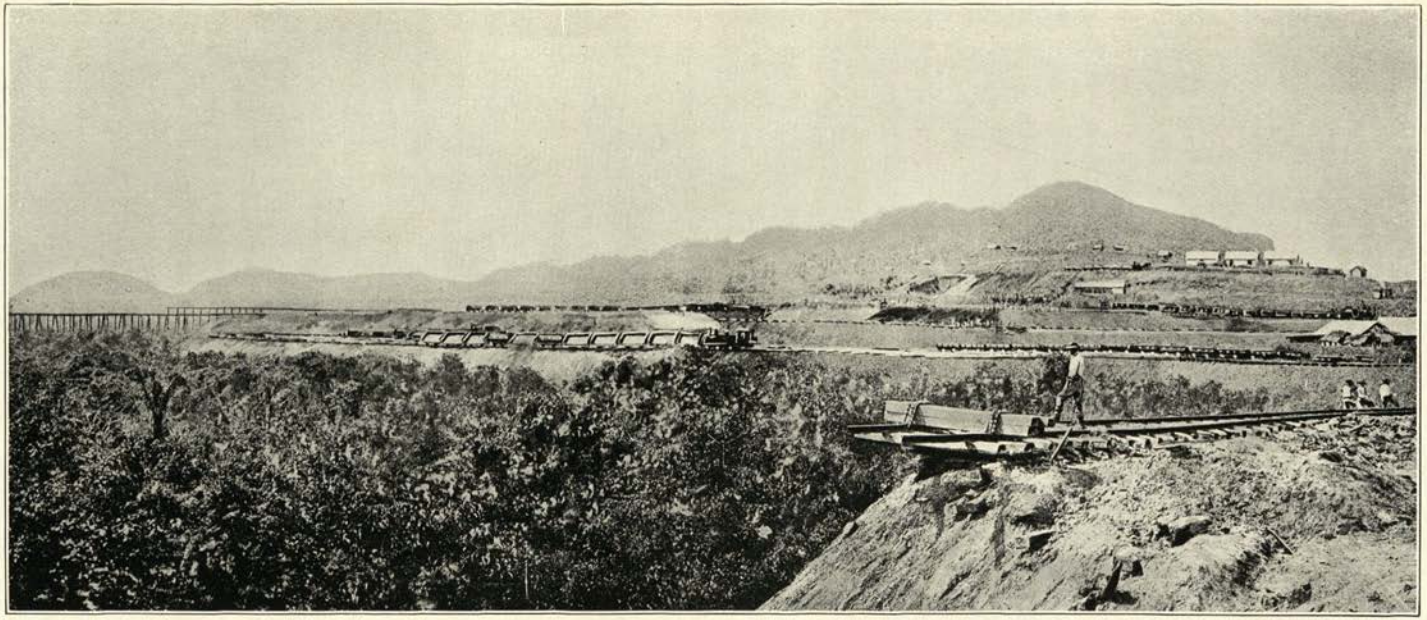
It was necessary to build bridges, perpendicular to the hillside, to support the first line, and to dump the trainloads from these bridges into the valley.

Once the bridge was filled and the dump thus formed it would be in contact with the hillside by its width only and no more by its length. An insignificant quantity of the water running down the hillside would therefore sink into it. The only inconvenience would be the water falling directly on the dump. It was too small a quantity to cause any great difficulty.

This new idea led me to build a series of wooden bridges across the valleys chosen for dumping. The unloading of the trains would gradually fill up the space below the first track. That once done a large stable embankment would be erected, on both sides of which trains could be unloaded without any fear of slides.

Such was the theory in which I saw the remedy for the essential evil which was at the root of the Culebra failure.

But there still remained to be fought, in the interior of the cut, a life and death struggle against the soft and slippery grounds. The fate of this battle was to be decided in two campaigns. The subsoil



HOW THE STABILITY OF THE SPOIL-BANKS AT CULEBRA WAS OBTAINED IN 1886–1888

In the background on the left can be seen the skeletons of bridges on which trains will unload their contents. In the foreground is a dump at the head of which stands a foreman. The track rests on a similar wooden bridge. The spoils have buried it and can now be deposited on the sides of the embankment thus formed.

Face p. 70]

of the Culebra Cut had been shown by soundings to be compact and firm. The difficulty, therefore, was in the coat of semi-fluid clay which covered the solid mass. It was about 30 ft. thick and in some places as much 60 ft.

My Proposal to execute the Works of Culebra without Contractors

When in the middle of 1886 the failure of the Anglo-Dutch contractors was obvious the Company became exceedingly distressed. I put before M. Charles de Lesseps—who, in theory, was Vice-President of the Company, but, in fact, the real head of it—the programme which I had just traced: "There are two sides of the problem to consider. The technical side is, in my own mind, now absolutely clear. There remains the administrative side. The required group of men cannot be looked for save among the best products of the Isthmian selection, because we have not an hour to lose. We must exclude all experiments, and advance rapidly by the only path in which safety lies. Let me do away with contractors and carry out the task directly with employees of the Company; form a special section of General Management of the Company on the Isthmus for this most important branch. Give me full powers with the free choice of my collaborators and the right of rewarding them amply for services rendered. Once the battle is fought and won I shall again be able to assume the general management of the works."

It was the solution which should have been accepted. If it had been, the Company would have profited by exactly the solution of the Culebra problem which I have just given. I should have remained at the service of the Company and, after organising the Culebra works, again taken over the general management, and have given to it the fresh impetus which it needed. My successors in the management after Boyer's death devoted their whole heart and energy to their task. But they limited their efforts to maintaining the movement that I had started. They never got beyond that. The excavation of 1,400,000 cubic yards monthly which I had obtained in January 1886 remained the average for the following years.

I believe I had convinced M. Charles de Lesseps of the soundness of my principles, both technical and administrative, for overcoming the terrible Culebra obstacle, but was confronted by the Board of Directors with objections to the system of executing works with employees and without contractors.

This system, in fact, is generally rejected in France because nobody knows in advance what the eventual cost price per unit will be.

The Canal Company requests me to form a Contracting Company

One day M. Charles de Lesseps said to me : " Could not this group of men, full of energy, ready to carry out your ideas, be found among the small contractors instead of among the engineers employed by the Company ? Why should you not put yourself at the head of a contracting company, the elements of which you would select according to your judgment ? You would then be able to employ the full liberty of action which the strictness of the regulations of a great company like ours will never allow you. Act on the Panama Canal the part of Borel and Lavalley at Suez. It is the greatest service you can render to the Panama undertaking."

This proposition upset all the conceptions I had formed as regards my future. However, after mature consideration, I became convinced that M. de Lesseps, in asking me to throw up my career as a Government Engineer, was demanding of me a necessary sacrifice. The freest form of action would give the maximum chance of success in the daring battle that must be fought against the adverse forces of Nature. From this point of view, and without taking into account the probable necessities of the future, it was the wisest advice for the moment. I was thus led to sacrifice all my personal ambitions in order to rescue the Panama enterprise from the danger to which it was exposed, and which, if not parried, meant an ignoble death to, and a perpetual condemnation of, the French conception of the Panama Canal.

However, while accepting the idea of leaving the Company in view of preserving a great national interest, I refused to confuse my decision by any question of material profit to myself. I declined to participate in the contract itself, though perfectly free materially and morally to do so. I wished to remain the inspirer and the guide of the Culebra work. I decided that no considerations of a personal character should weigh on my decisions and impress my judgment.

I should also have been glad, success once obtained, to take my place once more in the ranks of the *Corps des Ponts et Chaussées*, and for that reason it was necessary that I should not be personally engaged as one of the contracting company.

Man proposes, but God disposes. Unexpected circumstances wrecked the ship when, after gaining the open sea, it seemed bound to reach the harbour. I then foresaw a new and long task ahead of me. I felt I had been wrong not to accept a participation in the profits of the contracting company I had formed and directed towards success. It would have given me the necessary means to make the salvage of the Panama scheme the aim of my life. I accepted, therefore, the offer which my brother, a member of the Culebra Company, had repeatedly

and generously made, to share with me the profits he largely attributed to my technical knowledge. I then had, some years before, finally resigned from the *Corps des Ponts et Chaussées* and I was thus free to dispose of my life.

The contracting company which I formed to meet the views of M. de Lesseps was to be composed of elements which would place the success of its difficult task above all commercial considerations.

My brother, Maurice Bunau-Varilla, assumed the financial management of it, while two first-class canal engineers, MM. Artigue and Sonderegger undertook the technical side on the Isthmus. Both of the latter were sterling products of the severe selection to which Nature subjected men in Panama. Both had shown, first as engineers of the Canal Company, and later on as contractors, the most brilliant moral and technical qualities.

If success could be looked for from any group of men it was to be expected from such a combination. Experience, resistance, energy, passionate devotion to the Canal—they had every desirable quality.

From the 1st of September, 1886, I ceased to belong to the staff of the Company, in order to take up the direction of the Culebra works. It was just before the end of the sick leave accorded to me after my recovery from the attack of yellow fever.

The development of the desperate fight against so great a natural obstacle gave the result I had foretold.

The new method for establishing the dumps succeeded admirably. There were no more spoil-bank slides at Culebra. Possessing this powerful base of operations we could, at the cost of incredible efforts by day and night, maintain our positions inside the great cut. There was no point where we had to withdraw before the landslips. The victory was dearly purchased. On certain points the cost of one cubic yard of excavation, which was paid about one dollar six cents by the Company, rose to twenty-two dollars. But these sacrifices, which narrow-minded and egotistical contractors would have refused to accept, ensured victory, and with victory came, later on, a large compensation for the risks which had been courageously run and for the strenuous efforts made.

During the two years the Culebra Company operated, the average level on the axis was lowered 30 ft., instead of 6 ft., which would have been the former average. It may be admitted that the deepening was 10 ft. instead of 3 in the first year, 1887, and 20 instead of 3 in the second year, 1888. We had reached the average level of 235 ft. above the sea when the works were stopped. The bad grounds had then been entirely removed. It is beyond doubt that the average level would have been lowered 30 ft. in 1889 and 50 ft. in 1890. Only 15 ft. would have remained to be lowered

in 1891. It is thus clear that, within two years and a half, the cut through Culebra at the altitude of 140 ft. could be made. It would have corresponded for a lock canal to the summit level at an altitude of 170 ft. above the sea.

The increase of the amount of excavation made under these trying circumstances demonstrates the gradually increasing victory over Nature. During the first five months of 1887 which correspond to the dry and semi-dry seasons the average excavation [1] made was 114,700 cubic yards. During the seven months of the following wet season the average monthly excavation fell to 59,992 cubic yards. The proportion between the excavation in the wet season and the excavation in the dry season is fifty-two per cent. During the year 1888 an important part of the soft ground had been removed. The five first months gave 144,968 cubic yards monthly and the seven others 105,468. The proportion between wet- and dry-season excavation rises from fifty-two per cent. to seventy-three per cent. Every day the enemy was more and more completely conquered. The total excavation for the second year, compared to that of the first year was as 1·48 to 1. The excavation for the third year would, thanks to the enormous improvement in the conditions of the works, have given an average excavation of 200,000 cubic yards monthly and the year following of at least 270,000.

When the works were stopped only six and a half million cubic yards were needed to complete within three years the cut through Culebra for a canal with a summit level of 170 ft. above the sea.

Certain Calumnies concerning the Works of Culebra

The most difficult point of the whole work, the Culebra Cut, was completely in hand at the end of 1888. The victory over Nature was final.

It was the second exceptional service by which I had marked my connection in the creation of the Canal.

Naturally calumny was to try to make me pay dearly for this. The rôle I had reluctantly accepted, on the pressing instances of the Company, was depicted as abominable. It was said that I had used my position, as head of the Company on the Isthmus, to sign a scandalous contract with myself.

The cost of the cancellation of the Anglo-Dutch contract had been settled by mutual agreement between the Canal Company and the contractors. The discussion and settlement had taken place without

[1] These figures correspond to the Culebra Cut, as the French designate it, one geographical mile long, and not to the Culebra Cut, as the Americans designate it, nine statute miles long.

me, because I had no reason to take any part in it. If the Company had not made the cancellation amicably, they would have lost all hope of making the Canal at all. The ridiculous Colombian laws prevented its being possible for contractors to be ejected from any of their works without an interminable lawsuit.

The Anglo-Dutch contractors were honest people who did not seek to blackmail the Company. They tried, however, as was natural, to recoup themselves for a part of their losses, and accepted an indemnity of thirteen cents per cubic yard to be excavated by their successors.

In order to simplify matters the Company requested the new contractors, thus substituted for the original ones, to undertake the charge of paying this indemnity to the latter and the amount was added to the price fixed. A special arrangement allowed the Company to balance on this surplus payment, so that no supplementary expenditure would finally have resulted from it. Calumny transformed this justifiable and perfectly innocent arrangement into something underhand. The indemnity of thirteen cents thus paid by the Canal Company to the Anglo-Dutch Company for cancelling their contract was transformed into a commission of twenty-three cents, which I was said to have paid to Baron de Reinach for having obtained this magnificent contract. Hypocrisy and mendacity declared: "The general rumour is that a commission to Baron de Reinach," etc. This testimony, inspired by calumny, was received with a violent outburst of feigned indignation.

Besides the manifest absurdity of such an invention, it happened to be a fact that neither my brother nor M. Artigue nor M. Sonderegger nor myself had ever met Baron de Reinach until long after the Culebra contract had been signed.

As might be expected the stipulations for the contracts, which were all dictated by the necessities of their execution, were, after the downfall of the Company, vehemently discussed by the combined forces of calumny and ignorance.

Fortunately, however, the principle which had governed the contract substituting the Culebra Company for the Anglo-Dutch company was far above the most venomous stings of criticism. It was so drawn up as to ensure that the sea-level canal finally completed, the Company would not have disbursed one cent more per cubic yard excavated by the new contractors than if the former ones had fulfilled their task.

These despicable inventions were later transplanted from France to America. This was done in a futile effort to oppose the ratification of the Hay-Bunau-Varilla Treaty. But in America, as earlier in France, the cause of truth triumphed at the last.

My Buckler against the Slings and Arrows of Calumny

Fortunately for me, from the very beginning of my active career I had been able to measure the enormous margin between any action of man and the appreciation made of it later on. I have, therefore, adopted a rigid rule of conduct. I have never been satisfied with the testimony of my conscience in difficult cases. I have always examined whether I might not suffer even a temporary embarrassment in case my action should be reported in the public press in a hostile and unfriendly spirit. I have constantly eliminated from my life any decision which could not withstand such a test. Nobody, to be sure, can protect himself in advance against forgeries or mendacious statements. But their consequences are not to be feared when you can rest assured that every act of your life challenges even hostile criticism provided material truth is respected.

It is the fact that I have possessed this strong foundation for all my acts that has protected me as with a magic armour against so many attacks emanating from such various sources. It has left me cool and indifferent in the presence of calumny. It was that which prevented the enemy from paralysing the action I had sworn to exercise on behalf of the grand undertaking in which I served the highest moral interests of my country.

But if one can laugh at calumny knowing it to be doomed in advance to ultimate powerlessness, a rigid stoicism on the other hand is indispensable to help one to remain indifferent to its temporary consequences. The havoc it makes among those you thought to be your sincere and faithful friends is one of the most cruel trials of life. The thought of the Latin poet applies equally to our days :

> " Donec eris felix multos numerabis amicos,
> Tempora si fuerint nubila solus eris." [1]

I often realised how true this was, but it had no other result than to increase my efforts.

About some few Members of the Corps des Ponts et Chaussées

One of the most cruel disappointments which the rupture of the bonds of friendship has caused me came from the *Corps des Ponts et Chaussées*. My ambition was to carry back to it whatever honourable distinction my career could show. M. Rousseau, the most prominent personality of this great corps of engineers at that time, had written me in 1886 that my acts had done honour to it as well as to France.

[1] " So long as you are happy you will number many friends :
If your horizon is overcast you will be alone."

He had proposed to confer upon me the exceptional distinction for my age of the Cross of the Legion of Honour.

I had since added two brilliant chapters to the history of my Canal services: the victory over the Culebra difficulty and the complete solution of the problem of the Canal construction by dredging.

Alas! the Canal Company, whose enterprise I had saved from a technical point of view, was wrecked at the end of 1888 on a financial shoal.

This event was sufficient to change black into white, and white into black.

In accepting M. de Lesseps' pressing suggestion to attack the Culebra problem at the head of a contracting company, I had exposed my career as a Government engineer to jeopardy. A standing regulation, perfectly just for the interior service of France, forbids engineers to enter the service of contractors. If they do so they are held to have sent in their resignation.

For works to be executed in foreign countries, and in the interests of French industry a large tolerance is admitted in the application of this rule and many exceptions to such prohibitions have been and are now made.

The Department of Public Works had been asked if they had any objection to my taking over the direction of the works of the Culebra contracting company.

Their answer was, that in view of the great public interest attached to the success of the Canal the regulation in question would not be enforced in my case.

But when the Company fell all was changed. I was one day called before a special commission in the Department of Public Works. I was there literally stupefied to learn that I was accused of having neglected to obey the aforesaid regulation. Fortunately M. de Heredia, the former Minister, who had given me the permission, wrote that the accusation was completely false, and that I had been fully authorised for the reasons stated above. This put an end to the hypocritical persecution of which I was the victim. My indignation, however, was extreme, and I resolved to sever my relations with the *Corps des Ponts et Chaussées*. The Minister having expressed the intention of calling me back to active service, which would have cut short my work on behalf of Panama, I determined to send in my resignation.

At that moment I obeyed the same kind of impulse that caused the great lawyer, Barboux, to exclaim when he heard the condemnation pronounced by the Court of Paris against Ferdinand and Charles de Lesseps: "I will not plead any more before these people."

It was under these conditions that I abandoned the great corps of engineers which I have not ceased to esteem on account of the qualities

of devotion and scientific ability with which the greater part of its members serve the public interest.

But there, as in many other directions of our French administration, a narrow and jealous coterie delights in stifling generous ideas and bold initiative. It is the sad consequence of our political régime, the instability of which has reduced the personal authority of Ministers.

CHAPTER VII

NEW PLAN FOR THE CREATION OF A SEA-LEVEL CANAL: ITS ADOPTION BY THE COMPANY

I HOPE I may be pardoned for having followed with such detail the history of the victorious fight against the great obstacle of Culebra, so long thought to be insurmountable. The battle began on the 1st of January, 1887, after four months' preparation with a view of utilising the dry season, which lasts from January till April. During this dry season I had to occupy the strategical positions which allowed us to continue the fight during the wet season.

For the first time in the history of the Culebra Cut the rains were no longer able to stop the work of trains and excavators. When they began progress was maintained everywhere without receiving a check at a single point. To be sure this progress was much reduced by the difficulties to be faced, but all the main positions were held. It was a victory bought at a cost of enormous efforts and expense; but it was victory all the same.

While these preparations were being made for the dry excavation of the upper part of the Culebra saddle, I was reflecting unceasingly on the future of the Canal. Whatever might be one's hopes as to the results of the battle begun, was it not too late for the sea-level canal to be dug in the dry? Had not the time come to change our tactics and to consider frankly the new possibilities which my works of the preceding year near Colon had opened?

It may be remembered that I had proved the falsity of the principle according to which rock could not be excavated under water. I had, by a new method of submarine blasting, made the rock dredgeable. By a preliminary experiment I had found the cost of excavating submerged rock to be just as cheap as excavation made in the open air. Since then a contractor had boldly adopted the new method. He had withdrawn rails, locomotives, trains, and pumps from the cut opened through the rocky hills of Mindi near Colon. He had decided to excavate by dredging to the required depth of 30 ft., instead of excavating with trains and steam shovels, and of pumping away the infiltrations of water to keep the cut dry below the sea level. This demonstrated the new principle to be not only equal to open-air

excavation but even more economical. The consequence was that if a lock canal were to be adopted, it need no longer be a permanent one. It could now be conceived as merely a transitory step towards the ideal and final form.

What a magic transformation this meant. Instead of having to excavate 27,000,000 cubic yards in the Culebra saddle there remained less than 10,000,000 to be removed. The end instead of being infinitely far off, seemed almost within reach. Within five years it could be attained without giving up the perfect, the final, project. The execution of the sea-level canal could be begun as soon as the interoceanic navigation, once started, should have shown its magnitude, its earning power. It was no longer necessary to wait for the last cubic yard to be excavated before cashing the first toll money.

Necessary Conditions to fulfil before formulating my New Idea

I resolved to concentrate all my efforts upon the triumph of this idea as soon as I could be certain of the success of the new methods that I was applying at Culebra.

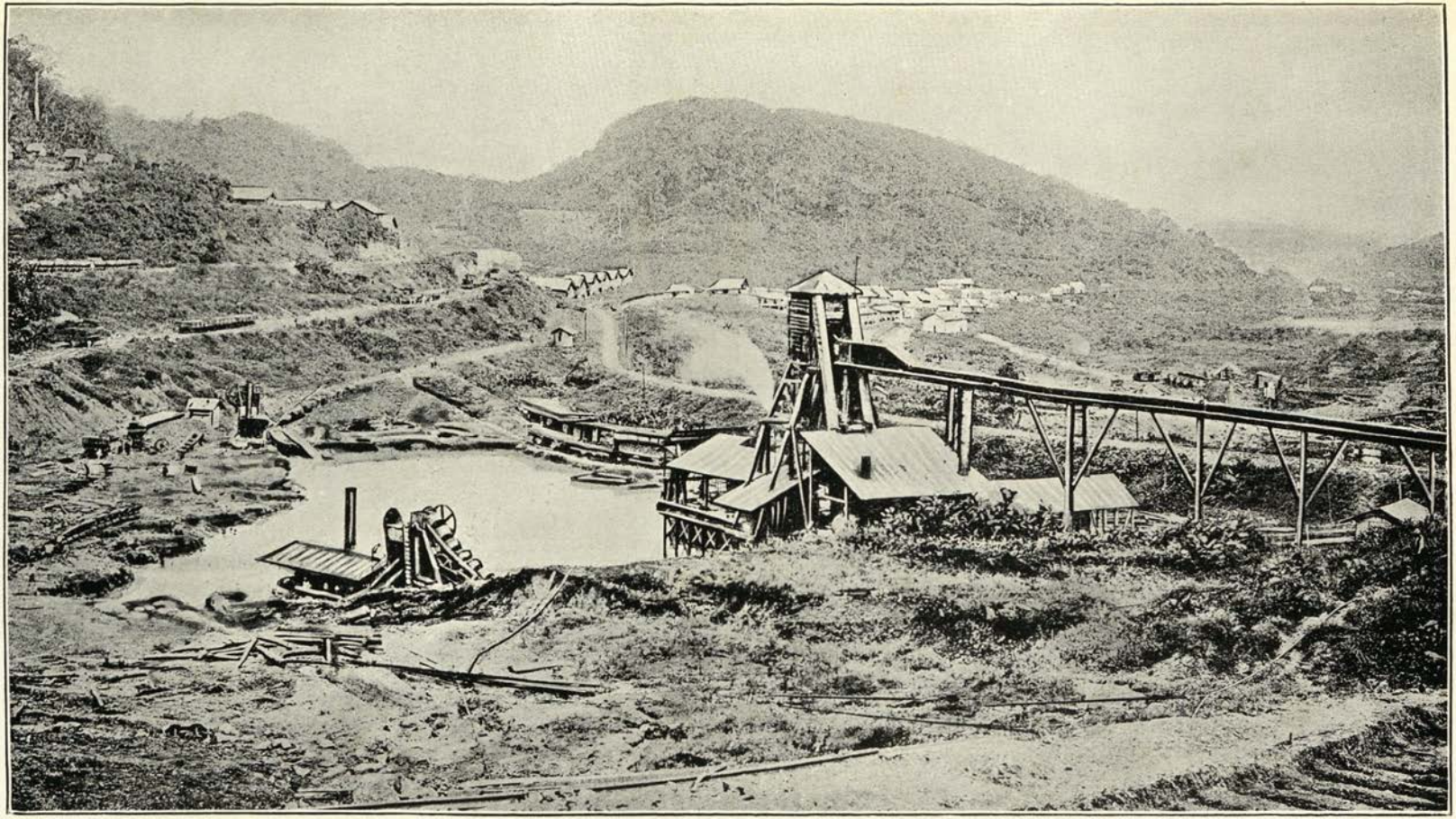
What was the use of beginning a struggle for the transforming of the whole scheme of the Canal if I did not succeed at Culebra? Before bringing forward my new plans it was indispensable for me to be able to say: "I am experimentally certain of opening in x years a cut through the Culebra saddle, with a bottom 140 ft. above the sea." This was the necessary basis of any argument justifying the new method.

Only a victorious result, after the beginning of the rains, could fix such a basis, and determine with experimental accuracy the x number of years necessary.

However, I foresaw what a mass of frantic objections would be raised by so revolutionary a suggestion; that is the fate of all new ideas. Besides, M. Ferdinand de Lesseps had always opposed any idea of a lock canal. It was necessary to demonstrate to him that I was not advocating the abandonment of his favourite scheme.

To that end I resolved to begin right away the excavation by dredges of the Culebra Cut proper. It was possible to do this by establishing artificial lagoons on each side of the saddle and at both extremities of the section.

On the Atlantic side the ground on the axis descended from the altitude of 330 ft. above the sea, on the axis of the Canal, to 223 ft. at the origin of the section at a distance of 53 kilometres 600 metres from Colon. On the Pacific side the section ended at a distance



THE DREDGING INSTALLATION AT CULEBRA (PACIFIC SIDE)

This view was taken in November 1888, from a point about 25 ft. above the dredging lagoon. The first preparations are made and dredging work is started, but the sections of the hull of a new dredge have arrived. Its massive parts can be seen on cars by the side of the pool. At the left-hand side of it can be seen the excavator which has dug the basin. The dredge which has begun working has already attacked the sides of the basin and dug the indentation into the straight line left by the excavator. On the left and above can be seen the tracks of the trains going out of the successive terraces at elevations 200, 225, and 250 ft. above the sea, and rounding the hill. The track for the level of 280 ft. above the sea cuts through the hill. The crest of the side slope of the cut can be distinguished below the highest shanties on the left.

THE RIO GRANDE DAM IN COURSE OF CONSTRUCTION (AUGUST 1888)

Its purpose was to raise the level of the water to an altitude of 220 ft., the bottom of the valley being at approximately 170 ft. altitude. To the right above can be seen the abutment of a steel bridge for a new location of the Panama railroad. The crest of the dam will reach the foot of the masonry of the abutments.

The stones which can be seen projecting on the surface of the wall have been so disposed in case later on it should be thought necessary to increase the height of the dam and consequently its thickness. This is precisely what took place nineteen years later, when the reservoir thus formed was used by the American Administration for the service of the Panama waterworks.

A view of the same dam, completed, is given on plate facing p. 468.

of 55 kilometres 456 metres from Colon, at 200 ft. above the sea, on a slope at the foot of which, 60 ft. lower, flowed the Rio Grande.

It sufficed to dig at each of these points a pool and to bring water into each. It was then possible to float dredges and barges and to excavate in the wet. To carry off the products of the dredging an elevator was to be built at each lagoon. This apparatus is a fixed dredge erected on piles. The barge once loaded by the dredge is towed there and enters between the piles. The elevator digs out its contents and raises them to a high level. Once there they fall either on the neighbouring ground or on trains which transport them to a distant dumping ground.

The problem of bringing the water was easy on the Atlantic side where the Obispo flows nearly at the same level as the water in the pool.

On the Pacific side, where the river is 60 ft. lower down, the question was less easy. To overcome the difficulty it was necessary to build a dam across the Rio Grande at a point three-quarters of a statute mile distant. There, where the river passes through a narrow basaltic gorge, I erected a dam 50 ft. high. The water of the artificial lake thus formed was 20 ft. above the level of the lagoon I had to feed. This gave an ample fall to syphon the water, in a steel tube, between the two places.

Thus I carried out for the first time the idea of attacking a cut by a floating dredge 60 ft. above the level of the river.

I returned to Europe early in 1887 to order all the necessary plant and to notify to the Company my new plan of attacking the Culebra Cut by dredges.

I propose General Adoption of the Method of the Dredging applied at Culebra

Some months later I judged the proper time to have come for explaining fully my solution of the canal problem.

I had not to say: "I want a lock canal." The proposition had to be made quite differently: "See, we have reached the rational method of excavation, the dredging method. It makes us independent of rains and land slides; I propose to generalise my system. The Isthmus will then be subdivided into a series of pools, where will float dredges, tugs and scows. If we unite these pools by locks we shall have a continuous water communication between the oceans. Make these locks sufficiently spacious for sea vessels. Conduct your work, which is easy, so as not to interfere with the passage of these vessels. You will not have

thus built a lock canal. You will have simply utilised your works in order to open up the trans-isthmic navigation. The Company will be able to levy tolls, and will have a future ahead of it of which it will be the master."

This convincing argument overthrew all objections and determined the Company to adopt in 1887 the so-called provisory lock canal.

I had once more followed the example of the Greek philosopher who demonstrated movement by walking.

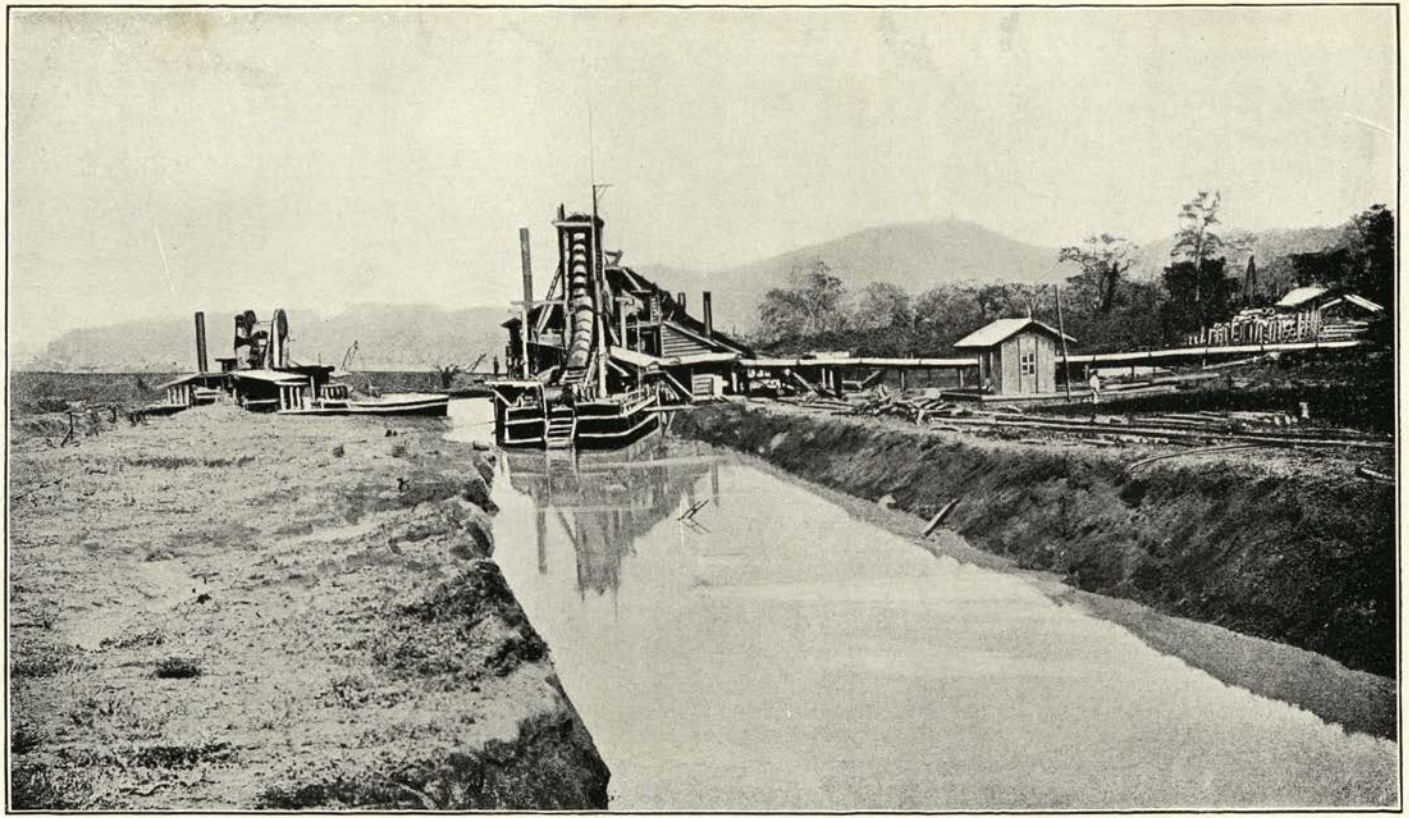
The Present Lock Canal is Merely Temporary

It is this idea that brought about at the time the decision of a weak and financially embarrassed private company. Nineteen years later it was to govern that of the most powerful and richest nation in the world : The United States. It is this plan which Mr. Knox was constrained to develop, as I have already said, before the American Senate, in order to carry their vote for the lock canal now near completion. That canal is only a provisory canal.

And yet, though the Panama Company adopted this idea, it would seem as if there has been, ever since, a conspiracy against it. The new Panama Company formally rejected it. They sternly refused to talk of anything except a perpetual lock canal. The United States admitted the idea of a provisory lock canal at the very last hour, and in order to prevent a contrary vote by the Senate on the project.

The reason is, that all the engineers of eminence who discussed the question had remained ignorant of the progress I had made in the matter of the excavation of submerged rocks and of those who had followed in my footsteps. Their minds were reluctant to accept the fact that an operation which formerly was more than difficult, nay, almost impossible, had been rendered very easy.

The idea of permanence with which they associated their conception of a lock canal, inflicted upon them the dangerous obligation of trying to make it perfect from the start. This entailed absurdly exaggerated expenses and enormous delays. Both were unnecessary, if the idea of gradual improvement, by dredging, had been understood by the projectors. It was this that foolishly paralysed all possibility of refloating the Canal undertaking in France. It cost America 200,000,000 dollars of unnecessary expenses and four years of unnecessary delay. But this is relatively immaterial, for the United States are rich enough to pay for their error, and the navigation of the world will repay it to America.



DREDGING INSTALLATION AT CULEBRA (ATLANTIC SIDE)

Dredging plant at work at Culebra in 1888 in an artificial lagoon near the banks of the high Obispo river at the foot of the Culebra slope on the Atlantic side. (Looking towards Colon.) It is fed by the waters of the Obispo, which only required raising a few feet to reach the level of the lagoon.

Face p. 82]

Main Characteristics of the Scheme I proposed

To the programme I had thus submitted to the Canal Company I had added a simple and happy technical solution, enabling all the locks to be successively removed without interrupting navigation.[1]

Apart from these general ideas I had decided upon the location for the locks, which would permit a great economy of time and money.

I had further thought out an entirely new system of lock gates completely answering to the special conditions of work required on the Isthmus.

I had fixed at four years [2] the maximum time in which to lower the Culebra Cut to a level of 140 ft. above the sea. This calculation was made without taking into account the powerful assistance which the dredges were bound to give me. In fact, I was personally convinced that I should be able to lower the cut in four years not only down to a 140 ft. level but to a 110 ft. level. The Canal was to be opened with five locks of 28 ft. fall at each side of the mountain divide, and I hoped it might be with four.

Preparations for the modifications mentioned occupied the rest of the year 1887. On the 1st of January, 1888, everything was in condition to permit of our looking forward to the opening of the Canal before the 31st of December, 1891. Even during the year before, 1890, the oceans would be united by a continuous water-line. This could be looked forward to with certainty of success. The progress of the works and their cost were based on the actually existing conditions and figures. There was no further risk to be run. All obstacles had been overthrown. The programme of the first of these four years, 1888, was methodically fulfilled. The most difficult part of the remaining task was the digging of the locks, and this was already more than six months in advance of the contract time at the end of 1888. This was the result of the activity of another contracting company that I had started on the model of the Culebra Company. It was formed by MM. Erzinger, Dephieux, Galtier & Co. Its business was to lighten the labours of the general contractor of the locks, M. Gustave Eiffel. The particular work at the excavation of the locks was extremely difficult, because it had to be done at a very rapid pace in order to leave the amount of time necessary for the subsequent erection of the gates and masonry works.

[1] In the Appendix will be found the solution of a problem which many engineers declared to be impossible.

[2] The delay of four years I fixed for the completion of the Culebra excavation was ample for the rest of the Canal. This can easily be seen. The total cube for the completion of any project was 56,000,000 cubic yards at the beginning of 1888. As the average excavation was about 16,000,000 cubic yards a year four years was ample for the completion of the excavation.

Scandalous Abandonment of a Work practically completed

It was just when the Canal enterprise deserved for the first time to be regarded as an absolute certainty that public confidence was withdrawn from it.

On the 14th of December, 1888, the Company failed. It was indeed a sinister day when the French abandoned, without the shadow of a reason, this glorious battle-field after victory had been absolutely won over the quasi-insuperable obstacles of Nature. Why did this event, terrible as it was absurd, take place ?

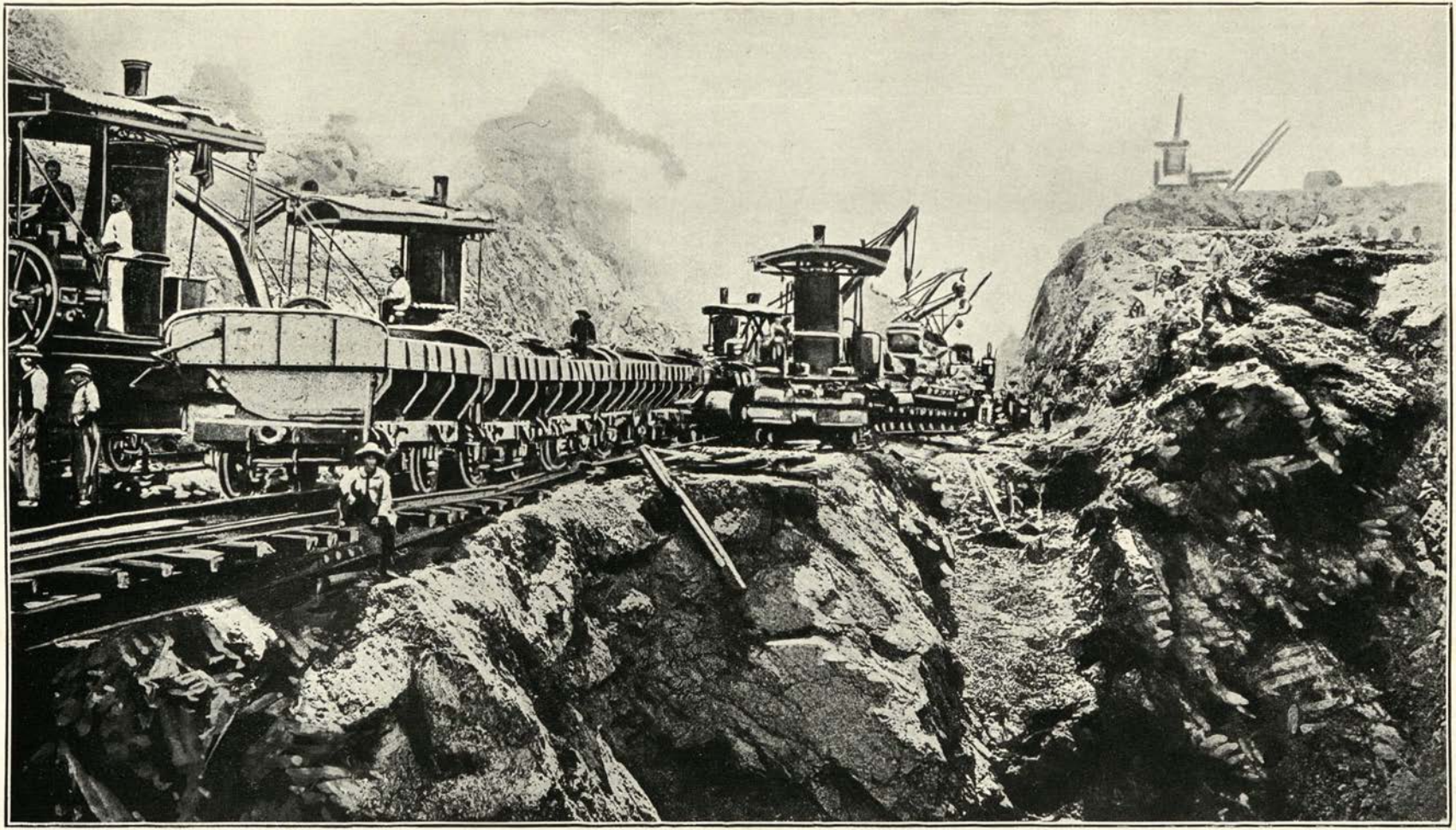
To understand the circumstances which brought about this lamentable condition of affairs it is necessary to go back to the days when I was at the head of the Company on the Isthmus. It may be remembered that I had then received, in succession, the visits of two delegates of the French Government. The Consul-General, M. La Vieille, came first, in October 1885, and the Councillor of State, M. Rousseau, came at the end of January 1886. Both had been entrusted with the special mission of advising the French Government as to the wisdom of authorising the Company to issue lottery bonds. M. La Vieille had been sent as a preliminary emissary, M. Rousseau was to be the deciding umpire. His report was what was to be expected from a man of his intellectual ability, straightforward nature, and wide experience. It is a model which may be read with respect to-day. It was distributed on the 26th of June, 1886, to the Committee of the House in charge of the question. He said in his conclusions that the Government ought to support the undertaking of MM. Ferdinand and Charles de Lesseps :

"The Panama Company, on account of the name and of the past of the men who direct it, on account of the eminent staff whom it has gathered together, on account of the grand and humanitarian character of the work pursued, and on account of the serious efforts which it has already made, and which it is continuing to make, to secure a successful issue, deserves the particular good-will of the public authorities."

Question put in 1886 by M. Rousseau : My Reply in 1887

But in the same report M. Rousseau did not conceal his impression that it was necessary to simplify the programme, which at that time was the construction of a sea-level canal. He said :

" Can it be seriously hoped that this programme may be carried out in the conditions which are presented to the public when subscriptions are invited ? Would it not be possible from a technical point of view to modify and simplify the programme so as to facilitate the completion of the undertaking ? "



WORKS AT COROZITA LOCK ON NOVEMBER 7, 1888

My answer to this question a year later, in 1887, was the idea I had just described, and which from the 1st of January, 1888, had enabled us to make headway along a course methodically planned out in advance. It also allowed us to count on completion at a date ensured by the same experimental method which had inspired all the results which I had achieved.

The Panama Company submitted to Extortion by Moral Violence

It is well known how the doubt, which patriotism and the scientific spirit had introduced into M. Rousseau's report, led to a criminal act being committed. The Minister of Public Works of the day, M. Baihaut, made a weapon of it to extort some hundreds of thousands of francs by moral violence from the Company.

The law had not foreseen the crime of extortion by a public official. When the victim, M. Charles de Lesseps, denounced the fact, it led to a prosecution for bribery and corruption. This atrocious confusion was not the least of the series of judicial offences against truth and logic which characterise the history of Panama, a series inaugurated by the death sentence pronounced against Balboa for having discovered the Pacific Ocean, and for having begun the researches of its junction with the Atlantic. As for Baihaut and M. Charles de Lesseps, the offender and his victim, they were tried and condemned together. It is only fair to add that the comparative lightness of the victim's sentence was a tacit admission by the jury and the court of the iniquity of the charge against him. This could not wipe out, however, the reality of the condemnation, whatever may have been its flagrant injustice. It entailed the erasure from the lists of the Legion of Honour of a man whose admirable character had greatly honoured them. This sad event gave the lie to the observation of the satirist: "In France we always succeed sooner or later in recognising the innocence of the victim." May this book help to prove the truth of this caustic remark!

Everything seems to be saved by the Law authorising the Lottery Bonds

After the report of M. Rousseau, things remained in suspense. That was as it should be. I had not yet extracted the unknown quantity from the Culebra problem. But when this capital difficulty was solved, when I furthermore had thrown a bridge between the two schemes hitherto separate, when the new principle of transformation had united the lock canal with the sea-level canal, the answer was given to the question of the Rousseau report. The Company then obtained

the vote for a law authorising the issue of lottery bonds on the 8th of June, 1888.

The financial question was becoming as solidly assured as the technical problem. Eighty millions of dollars were necessary to complete the works of a locked passage at an altitude of 170 ft., and forty million dollars represented the interest while the work proceeded.

Thanks to the passing of the law, the Company had the assured means of obtaining the hundred and twenty million dollars necessary for the opening before 1912.

All was in order, and success was bound to crown our efforts when a terrible financial error was committed.

CHAPTER VIII

THE FINANCIAL BLUNDER THAT WRECKED THE COMPANY WHEN IN SIGHT OF THE GOAL

A MISTAKE in helmsmanship threw the ship on the rocks when a perfectly free channel was at last open before it. The channel had been dug by a series of superhuman efforts which had strained all the technical, financial, legislative, and governmental resources of the nation. The enormous result about to be obtained, and which indeed was just within reach, was forever destroyed for France by an incredible error of judgment.

The law had authorised the issue of bonds for 144 million dollars, out of which 24 millions were to be withdrawn in order to ensure the prizes in the lottery and the reimbursement of the bonds; 120 million dollars would remain with which to pay for the works required for completion, together with all interest due up to the day of the union of the oceans, within a period of three and a half years at most.

Up to that day the subscribers had furnished an average of 30 million dollars per annum. The attraction of the lottery was bound nearly to double the likely number of purchasers of the bonds. It was logical to assume then that an average of 55 million dollars would be contributed to the enterprise yearly.

These reasonable expectations ought to have governed the financial tactics. Had they done so the public subscriptions would certainly have come in, and the Canal would have been opened at the stated time.

Unfortunately the subdivision of the issue into three groups had the inconvenience of diminishing the importance of the sum devoted to the drawing of the lottery. It prevented the creation of big prizes, which was a serious element of attraction to the would-be subscribers.

A simple issue of the totality of the bonds would, on the contrary, have allowed the drawing of important, and therefore very attractive, lots. The Company desired to adopt the first system as being slow and sure. It was the counsel of wisdom. The majority of the representatives of the large banking institutions, above whom towered the great personality of M. Germain, founder and president of the Crédit Lyonnais, voted for the simple issue of the whole of the bonds to a

total value of 144 million dollars. The prudence, the maturity of judgment of the man who endowed France with one of its greatest banking concerns, seemed to exclude the possibility of any error of judgment. It must be recognised, however, that it was he who was mainly responsible for the commission of this terrible error which wrecked the Canal at a time when it had miraculously escaped from the many dangers to which it had all along been exposed.

M. Germain's opinion carried the vote, and M. Charles de Lesseps was obliged reluctantly to accept the will of the banking establishments who had charge of the issue.

On the 26th of June, 1888, two million bonds of seventy-two dollars each were offered for subscription. The payments were to be made in seven calls, the last one on the 10th of November, 1889. Four dollars per bond were to be paid on the day of subscription.

The enemies of the Canal, knowing the weak spot in the armour, did their utmost to wreck it. On the day of the subscription the false news of the death of M. de Lesseps was telegraphed all over France, whilst shares were systematically thrown on the market beginning on the 23rd of June in order to depress the prices. Owing to these manœuvres the shares fell from seventy-four dollars on the 23rd to fifty-seven on the 28th. Thus the issue was heavily prejudiced, and only 800,000 bonds were subscribed for instead of 2,000,000; 350,000 subscribers made application.

This shows what would have been the result if M. de Lesseps had been allowed to limit the number of bonds offered for subscription to 660,000. In such a case the whole payment would have been made immediately.

By the method adopted the Company received from the subscribers four dollars on the first day and eight dollars some days after, say 9,600,000 dollars of the 58,000,000 subscribed.

But on the following day the fund for the lottery had to be constituted. It was necessary to invest in it about eight dollars not only for each of the 800,000 bonds subscribed, but for each of the two million bonds offered. The lots could not be subdivided and the funds for the drawing had to be complete. It resulted therefrom that the Company had to give away sixteen million dollars when they were receiving only 9,600,000. Such was the dire consequence of the lamentable error in financial strategy committed by a man whose name was a symbol of prudence, precision, and business ability.

The Company commits a Grave Mistake

This capital error by the head of the banking establishments was followed by a great error on the part of the Company itself.

The Company had then to take an heroic step and reverse the policy. It had to annul the great single subscription and to return to the old method of small issues.

This was the counsel of Baron de Reinach. His memory has been blackened, but it is only fair to say that he then suggested the true solution, one which might have saved everything.

The Company rested its hopes on less decisive measures. M. de Lesseps went lecturing through France. He attempted an issue of bonds through a second-class bank. The threatened enterprise sank lower and lower. On the 14th of December it had fallen.

The period of creation ended suddenly as the day of apotheosis was dawning.

The period of savage destruction was soon to begin.

PANAMA—THE DESTRUCTION

CHAPTER IX

EVENTS FORESHADOWING THE DESTRUCTION

On the 15th of December, 1888, the Chamber of Deputies, by 256 votes against 181, rejected a Government Bill authorising the Panama Company to postpone payments for three months.

Violent Political Coalition hostile to Panama

That rejected proposal was the last that the Government of the French Republic was to make in the interest of the great work of Panama. All the acts of public authorities were thenceforth to be inimical to it. The members of the Chamber of Deputies outvied one another in dealing blows at this great national interest. To the enemies of the Republic who shouted: "Kill," the friends of the Republic answered: "Strike hard." Never was there such a general contagion of moral epilepsy. Never did Passion more cynically challenge Reason. Never have we beheld in every quarter of the political horizon such a mad whirlwind of destruction directed against a scheme so grand, so deserving, and yet so helpless.

Those whom this display of wickedness and cowardice disgusted remained as if frozen by terror. Not a single voice was raised in this concert of imprecations in defence of Truth, Justice, and the National Interest.

To-day we may behold in foreign hands the great work which our minds conceived, which our gold and our blood brought forth from the domain of the Impossible.

We can say: It was not the yellow fever which killed this great work. The French knew how to face and defy its dangers. Those whom the plague laid hold of died with a smile on their lips, like Léon Boyer, whose last word to his comrades was: "Do not abandon Panama." Those who survived obeyed the heroic password, and overcame all the obstacles of nature.

They who killed the Panama undertaking, who worked by slander, the propagators of that mental fever so much more deadly than yellow fever.

They hoped by ruining 600,000 French families to overthrow the

form of government they hated. Those who killed the Panama undertaking are they who sought the salvation of the same form of government by propagating, in their turn, calumny, in the garb of defence of justice.

The former shouted: "Panama is an impossibility. It could be kept alive only by swindling and corruption. Such a scandal can take place only with a republican form of Government." The others retorted: "Yes, certainly Panama is an impossibility. It is a work founded in corruption and carried out by swindling. We are going to show you how a Republican Government punishes such a crime!"

No authoritative voice raised in Parliament to say: "No, Panama is not an impossibility! It is not a work of swindling and corruption! It is the greatest manifestation of energy and of the spirit of enterprise that France has ever presented. It is the boldest, the most fruitful, the most heroic, undertaking that the genius of any nation ever conceived or ever attempted to carry out without the help of public money. If, in that enormous activity of men and interests, a fault has to be imputed to this or that unworthy individual, redress must be had in the tribunals whose mission it is to distribute justice. No one who writes of the wars of the First Empire confines himself to the personality of a Thenardier, emptying the pockets of the heroes fallen on the battle-field. Such a matter is an infinitesimal and negligible incident. It is a matter solely for the court-martial and for the executionary squad."

But nobody ever said that. I at least tried to do my duty and to get a chance of stating what I knew to be the truth. I stood for the Chamber of Deputies at Mantes in 1889, in order to win the right to speak from the parliamentary tribune, and to lash slander with the whip of truth. I did not succeed. The electors of Mantes, on that day, badly served the interests of their country. Why did they not add 600 more votes to the 6000 they gave me? That would have sufficed to beat my opponent, and I would willingly have given him his seat as soon as the work of lightening the darkness had been effected in the interests of France.

The men of good faith of all parties would have done their duty if they had only known where that duty lay. They would not have let themselves go and spread the perfidious poison bred of hypocritical virtue, by which they mutually aggravated one another's passions, and thereby destroyed the most generous enterprise of our generous race.

The Object of my Relentless Struggle against Nicaragua

If the Nicaragua Canal were now on the eve of its completion, and Panama therefore abandoned, this infamous legend would have

been transformed into historical truth. This is why I worked so desperately in America for the victory of the Panama Canal over its rival, Nicaragua.

A reaction necessarily set in, in the public mind, at the contact with facts. Americans, who have never been convicted of trying to make bad bargains for humanitarian reasons, were found to pay forty million dollars for what cost a hundred and sixty. Everybody knows that twenty-five per cent. of the original value is a reasonable purchase price for the assets of a bankrupt industry which nobody cares to acquire. People instinctively concluded that the real value was at least four times greater than the one arbitrarily fixed by the only possible purchaser on the market.

Later on came the noble testimony proffered by the American officers and engineers as to the great results accomplished by the science and heroism of their predecessors.

Later still it was proved that the estimate of the cost of completion, made by the foremost American engineers before its adoption at 139 million dollars, was inadequate.

Indeed, three years later an additional expenditure of 157 million dollars was quoted as necessary for carrying out the plan adopted.

Later on the fact came out that in spite of the enormous facility afforded by the suppression of tropical fevers, the average amount of excavation per head of workmen is the same to-day as in the time of the French.

Later on came the discovery with regard to the plant brought over by us, and for which the Americans refused to pay one cent because they considered it obsolete and useless. Our dredges, although abandoned for nearly twenty years, were put to work near those ordered by the Americans. Their results stupefied their new proprietors, they furnished far greater results in excavation than the new ones and at a much lower unit cost.

These various facts gradually penetrated the public mind in France and corrected the error with which political passions had poisoned everybody's mind. Public opinion is now in a state of uncertainty, which this book, it is hoped, will finally settle.

The legend has taken refuge in America. The authoritative American voices which have never ceased to proclaim the greatness of the work done by the French, and its extraordinary difficulty, have found but little echo there. Various writers, who forget that Pharisaism is a corrupt form of Puritanism, do not fail thus to pay homage to the ancestral faith. They begin by expressing well-deserved praise to the engineers actually in charge of the works, and, perhaps in the hope of raising them still higher, they conclude by an aspersion on their predecessors. They speak of the French works " made up of

corruption and scandal." They seem full of the spirit of the well-known prayer : " O God, I thank Thee for having given me so many virtues, and for having made me so different from my neighbour, to whom Thou has given so many vices ! "

Alas ! if they are asked where they found these vain tales they answer : " You yourselves have taught us that. We do but repeat your own epithets and your own judgments,"

And one remains of necessity dumb before the consequences of the errors of the mother-country.

For these reasons it is now necessary to unravel the horrible tangle in which political passions had involved and choked the great work of the French.

This work began as soon as the Company failed. At first the libels spread abroad by all disappointed blackmailers, by employees dismissed for unfaithfulness, and by the discontented of every category did not make much impression on the political world.

If the enterprise had been promptly re-established most probably no impression would ever have been made.

Fatal Consequences of the Work of the Liquidator's Technical Commission in 1890

Unfortunately this very desirable consummation was prevented by a deplorable mistake. It origin was not in any bad intention. It was only a consequence of human error combined with ignorance and vanity.

After a short intervention of the temporary Directors, MM. Denormandie, Baudelot, and Hue, appointed by the courts on December 16, 1888, a Receiver was appointed to the Company on February 4, 1889. This gentleman was M. Joseph Brunet, a former member of the Cabinet. His reputation for integrity and high intelligence gave him great prestige. His first act was to appoint a technical commission in order to draw up a plan for the completion of the works.

The engineers he selected were very distinguished men. But professional distinction was not the only quality necessary.

To deal with such a question the engineer needed to be endowed with qualities which are not generally required in the engineering profession.

What was required, in order to save the undertaking, was not to conceive the most perfect canal, but to devise a plan for a canal which would be the most simple of execution, and the most rapidly constructed at the least possible cost. Economy of time and money could be purchased at the cost of certain imperfections, provided these could be rapidly remedied whilst the Canal was in operation.

These were the considerations that had inspired my own project of 1887 which had been adopted by the Company.

But in order to obtain a correct conception of the project it was necessary to combine with purely technical considerations others that were non-technical, and of a more general and financial order.

The Government engineers, and the greater part of the members of the Commission belonged to that class which generally neglect such considerations. They have at their disposal the large resources of the public funds. Their ambition consists in accomplishing, with complete and final perfection at the outset, the works entrusted to them.

No wonder, then, if they rejected the simple, easy and gradually perfectible project which the Company had adopted. They preferred a lock canal as perfect as it could be conceived, the result was that instead of three years and 80 million dollars, their project necessitated seven years and 116 million dollars, plus 64 million dollars for interest during the long period of construction. This made a total of 180 million dollars.

The result was fatal. All hope of floating the great enterprise was once more at an end. The enemies of the Canal felt fully authorised to break out into renewed imprecations.

They made wilful confusion between the new project, which, by the way, was utterly bad and impossible of execution, with the very practical project adopted by the Company.

It was astutely recalled that a figure of 180 million dollars had been brought forward at the origin of the works. It was therefore argued that nothing had been done, since the figures remained the same. They thus gained a clear vantage-point with the aid of the report of M. Brunet's commission.

The project of the Company, so well adapted to the rapid opening of interoceanic navigation, was doomed. From the 3rd of May, 1890, the day the *Commission d'études* presented its report, it was useless to attempt to revive it.

To avert the Danger, I prepare a Fresh Scheme

In order to satisfy the principle laid down by the *Commission d'études*, I prepared a new scheme, which was above criticism. But whilst that scheme corresponded to the principle adopted by the Commission it eliminated all that made their project impossible of realisation.

It was this new scheme that I put forward on the 20th of March, 1892, in my book: "*Panama—the Past, the Present, the Future.*" It was later on adopted in its entirety by the Technical Commission of the New Panama Canal Company in 1898, only excepting the method

of feeding the summit level and the ulterior transformation into a sea-level canal.

Panama the Prey of the Politicians: Intervention of M. Drumont

But in the meanwhile the Panama fever invaded the political field. It broke out first in Drumont's book, *The Last Battle*, which was published in 1890. In order to create a political scandal, it was necessary to strike at the head of the enterprise, the great, but unfortunate Ferdinand de Lesseps. One of the chapters of the said book takes as its title this name, the object, till disaster came, of universal veneration. These are the terms with which the writer describes the noble character of the man whose disinterested life had been wholly devoted to enhance the grandeur of France :

"*This scoundrel walks about as a triumphant hero.* The poor devil who has broken a window to steal a loaf of bread is paraded under the guard of a police officer, between the prison and the office of the examining magistrate, and from that magistrate's office to the police court. Nobody will ever open a judicial inquiry into the affair wherein 300 million dollars of the savings of the Nation were engulfed. This man will never once be asked : What have you done with that money? *The Senate, which de Lesseps has loaded with presents*, hastily voted the Bankruptcy Law [1] so that this *criminal might not be branded.*

"*From the point of view of practicability the enterprise of Panama has provoked nothing but shrugging of shoulders. Among the men of science of the whole world many are convinced that no one ever seriously thought of making the Canal. The dam across the Chagres river has been recognised to be impracticable.*

"The fact is, that M. de Lesseps considered the actual works as an entirely secondary affair.

"The unfortunate Marquis of Rays, *the man who caused the death of a hundred unfortunate people by establishing them on an uninhabitable island, did not commit one-tenth of the rascalities* of which *de Lesseps* has been guilty.

"He had not to reproach himself with one-fourth of the lies which the former President of Panama has dared to utter; nevertheless, Rays was stricken by justice without mercy.

"The shareholder of Panama was an object of astonishment throughout Europe, merely on account of his *stupidity* and of his *incredible credulity.*

"The *Frenchman*, who has given his money to all the *swindles* of our time, from the *Honduras* affair [2] to *Panama* and who would be rich if he did not waste the profits of his labour, is incapable of intelligent thought outside the scope of his actual business.

"When it is impossible to suppress certain facts they evoke fresh phantoms before these crazy people. For the hope of an immediate profit they

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[1] M. Drumont speaks of a law dealing with commercial companies, which could not be and never was applicable to the Panama Company.

[2] M. Drumont makes allusion to a celebrated financial swindle connected with certain railroads in Honduras about half a century ago.

substitute the *fear of being despoiled of a problematic future gain. They say to the Panama shareholders: Take care; the Americans are watching you,* the Germans have but one 'sole desire, namely, to take over the business.'

"Were the intelligence of these unhappy creatures in a normal state they would say to themselves: '*Why? Here are the Americans* who have accomplished prodigies in industry, who have so much money that they do not know what to do with it, who fling down billions for anything possessing a shadow of probability, yet M. de Lesseps has not been able to sell them a single share. They are decidedly telling us fairy tales!'" . . . .

"It is the witches' sabbath of the old days, the Mass read backwards, the sign of the Cross made with the left hand. *The consecration of Ferdinand de Lesseps as a great Frenchman is a joke of this kind, an antiphrase in reality.* With the exception of Gambetta and Jules Ferry it *may be asserted that no contemporary Frenchman was ever more systematically hostile to French interests nor ever did more damage to his country.*"

This was the foundation of the campaign led against the enterprise of Panama. Little by little this hysterical denunciation was to filter into the heads of the people and become the ruling element of public opinion. The flickering flame was to grow into a formidable fire and to ruin forever the hopes of the country together with the modest fortunes of thousands and thousands of French families.

Those whose duty it was to stamp out the fire remained at first inert, and later on joined the ranks of the incendiaries.

The report of the *Commission d'études* of the Official Receiver Brunet had been handed in to him on the 5th of May, 1890. It had supplied, as I have said, a powerful basis of operations for the enemies of the Canal. They abandoned the elegant, simple and rapid solution dictated by experience. They enunciated a project, which was new, extremely costly, and most likely impossible of execution. The Commission did not even dare to guarantee its practicability. They even questioned their own accuracy. These doubts only applied to the views of the Commission itself, but everyone was led to believe that they referred to the possibility of creating a canal at all.

The opportunity was too good not to drag into parliamentary discussion denunciations having the same foundation and the same aim as those I have just reproduced.

Speeches by MM. Le Provost de Launay and Delahaye

On the 21st of June, 1890, MM. Le Provost de Launay and Jules Delahaye roused the echoes of the Chamber of Deputies with the violence of their denunciations.

M. Delahaye brought forward a document, emanating, he said, from *able engineers* and from *conscientious men.* On account of the extreme gravity of the accusations everybody was led to think that

no deputy would ever have dared to bring into the parliamentary discussion such a document unless it had been written by a *high technical authority*.[1] This document reviewed the various sections of the Canal, and stated the figures for the excavations said to have been paid for, compared with those which the *high technical authority* pretended had really been executed.

Unfortunately the *high technical authority* was utterly ignorant of everything connected with the Canal. He did not even know where the different groups of contractors were working. It was the most absurd and ridiculous confusion of names and figures ever imagined. The unknown author of this production who was designated by M. Delahaye in the House as a *high technical authority* was probably either a grossly ignorant forger or an unworthy practical joker. But the passion with which M. Delahaye produced the document, which he guaranteed as being authentic proof of infamous doings made an immense sensation in the Chamber.

Under normal circumstances the production of such an obviously faked document would have quickly brought confusion upon its sponsor. It was just such another indescribable invention as was some months later produced in the Chamber emanating from a negro forger named Norton.

In the case of the Norton papers the forgeries produced were thought to demonstrate that certain members of the Cabinet had been receiving a salary from the English Government for treasonable acts. The accused persons were present. They could defend themselves. M. Millevoye, who read the forged document, was practically crushed by the immediate replies of the interested parties. But in this case of Panama M. Jules Delahaye remained entirely master of the field, because nobody was there to answer him.

Failure of the Board of Inquiry to refute Calumny

But everyone will say: There was a Commission of Inquiry. When the absurdity of the paper produced by M. Delahaye, and falsely attributed by him to a *high technical authority* was established, did they brand the unknown author of the forged document? The Commission of Inquiry did not even censure him who presented it to the Chamber! Everyone, without distinction of party, was confounded in the same rank and file. There was then but one crime. It was to have served the Panama enterprise. There was but one virtue: it was to have helped to destroy it.

[1] Two years and a half later, that is on November 21, 1892, M. Le Provost de Launay was to invoke again before the Chamber of Deputies another worthless collection of misleading figures about the works of Culebra.

The forged paper which M. Delahaye read at the tribune was published once again, but a long time afterwards. It was in New York and in a paper of high standing. The *Evening Post* undertook a violent campaign against me in order to prevent the ratification of the Hay-Bunau-Varilla Treaty by the American Senate in 1904. Among other courtesies it did me the honour of quoting the famous document.

It was stated to be taken from the *Bulletin du Canal Interocéanique*. My lawyer replied to the *Evening Post* : " We challenge you to produce any *official newspaper of the Interoceanic Canal Company* containing the gratuitous falsehood you assert to have been published in the *Bulletin du Canal Interocéanique*."

The *Evening Post* some days later answered : " He challenged us to produce any '*official newspaper*' containing the 'gratuitous falsehood' etc."; then brandishing triumphantly the *Journal Officiel de la République française*, with the reproduction of M. Delahaye's speech in the Chamber of Deputies, the *Evening Post* said : " In its issue of June 22, 1890, at p. 1142, will be found the exact quotation from the Bulletin which we made."

The *Evening Post* was unable to give the number of the *Bulletin du Canal Interocéanique*, for the very simple reason that no copy ever contained what the *Post* had asserted to have been published in it.

The *Evening Post* was therefore obliged to take refuge behind M. Delahaye's imaginary assertions in the Chamber of Deputies as to the origin, not of the document but of its figures.

If the *Evening Post* had simply explained its error it would have been wholly excusable. But it maintained it while confusing the words : *official newspaper*, and presenting the *official newspaper* giving the debate of the Chamber as an equivalent to the *official newspaper of the Interoceanic Canal Company* which it was challenged to produce, and which alone could have justified the *Evening Post's* assertions. Far from having been reproduced from the *Bulletin* the document brought by M. Delahaye was anonymous and never was mentioned again by him.

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CHAPTER X

THE DESTRUCTION BY JUDICIAL MACHINERY

THE violence of public opinion, roused by the storm of frantic denunciations, was gradually increasing.

BEGINNING OF THE PERIOD OF JUDICIAL PROSECUTION

On the 11th of June, 1891, the Attorney-General of the Paris Court ordered a judicial inquiry to be opened into the charges against the members of the Board of the Panama Company.

As M. de Lesseps was one of the select band of the *Grand Croix* of the Legion of Honour, he could be judged only by the Court of Appeal without first passing before a lower tribunal. A member of this court was accordingly deputed to make a judicial inquiry.

It was rigorous and complete. All the account books of the companies and firms in business with the Panama Company were seized, as well as the correspondence of the directors and of the contractors. No trace of any crime or misdemeanour whatever could be found in the administration of this vast affair of men and money.

M. Drumont had explicitly brought an odious and incredible charge against the integrity of M. Charles de Lesseps relating to the Anglo-Dutch contractors : " The truth is," wrote M. Drumont, " *that M. Charles de Lesseps had an interest in that Company, as he had in all those who obtained advantageous conditions.*" The inquiry demonstrated the absolute lack of any shadow of foundation for this cynical assertion.

The duty of the magistrate was simple. He had to say either : " There has been a misdemeanour or a crime and here is the basis for its presumption." Or : " There is no trace of any crime nor of any misdemeanour, and justice cannot find any breach of the law."

Had the magistrate confined himself to his clear and simple mission, it is probable that the Panama Canal would have been long ago completed by the French to the honour and in the interests of France.

But as he could not show any breach of the law, he contented himself by throwing upon the Attorney-General the task of taking a decision.

The principal document of the inquiry was a report by the expert accountant Flory. He was an absolutely honourable man, but he too did not know how to remain within the natural limits of his experience. He had to verify the accounts and to look for any trace of crime or misdemeanour wherever one was suspected to exist. As he could not find any, he transformed himself into the historian of the most difficult technical undertaking the world has ever known. He had neither experience nor knowledge to appreciate and to judge the stipulations of the contracts. Nevertheless, he undertook to appreciate them. He was enlightened solely by his own private conception of a whole technical system on which the most expert engineer would have refused to pass judgment without a prolonged inquiry on the spot.

Desperate Efforts of Justice to discover a Legal Offence

Nobody, in fact, confined himself to his own business, nobody contented himself with doing his simple duty. Everybody's mind was haunted by the insane desire to discover a crime. That was impossible, but nobody had the courage to say so. A fiction was composed in which the clearest facts were distorted by the light of the calumnies that everywhere prevailed.

Those who had the highest titles to be consulted and to throw the light of truth on the inquiry were systematically kept out of it. On the 20th of March, 1892, while the inquiry was being made, I published an exhaustive book on the question: *Panama—le passé, le présent, l'avenir* (" Panama—Past, Present, and Future ").

It might have been expected that the magistrate in charge of the inquiry, M. Prinet, or the historian he had chosen, the expert accountant Flory, would have asked me to contribute to their researches. Nothing of the sort. I could do nothing but bring to the inquiry the obvious justification of the Company's actions on the Isthmus. I was not the kind of man whom those who stood for justice would call in. I was never once invited either by M. Prinet, or by M. Flory, to explain anything. Only those men were summoned who could reinforce hateful fictions, and those who could destroy them were not wanted.

Such were the circumstances in which this long inquiry was elaborated, the results of which were finally transmitted to the Attorney-General, Quesnay de Beaurepaire.

M. Quesnay de Beaurepaire is one of the most singular characters of our time. He had made himself conspicuous by the part he played in the trial for conspiracy before the High Court of Justice of General Boulanger, whose conviction he finally obtained. He earned great

credit by refusing to leave to another the perilous task of demanding the death penalty for Ravachol, after the series of anarchist bomb outrages which so greatly aroused public opinion. He had the imagination of a writer of romances. He offered a curious mixture of sudden enthusiasms followed by the reaction of mature thought. His action in this trying phase of the Panama history was nefarious. As soon as he received the report on the inquiry, the probability of a spectacular suit against the most gigantic enterprise of our days exerted a powerful seduction on his mind.

In a letter to the Minister of Justice, dated September 10, 1892, he proposed to prosecute MM. Ferdinand and Charles de Lesseps, Cottu and Fontane, members of the Board of the Panama Company; and Eiffel, one of the contractors. In this letter he expressed the most erroneous considerations on men and things. The author of such a letter deserves the most severe reproof from impartial minds. He had under his eyes an account of the facts that had been already deformed by the frantic pressure of baseless accusations. He deformed them still more under the pressure of his own desire of justifying a prosecution, when no breach of law, either civil or moral, could be shown. He reveals his whole frame of mind in the following sentence :

" The possible results—we mean, by that, the dangers of a prosecution—are the following : An acquittal is possible. But what of that ? The prosecuting magistrates will have done their duty, and *if they do not succeed in convincing the courts they will have at least enlightened public opinion.*"

He thus implicitly states that there is no trace of the guilty actions which have been denounced, and which alone could justify a criminal prosecution.

There is no trace of payments to the contractors outside of what was due on account of excavations made and of the stipulations contained in and provisions of the contracts. There is no trace of any fraudulent understanding between contractors and members of the Board. There is no trace of misappropriation of funds by the members of the Board or any other person belonging to the Company's staff.

Had there been the slightest trace of these accusations there would have been no danger of acquittal. After having mentioned this danger, due to the total absence of any breach of the law, the Attorney-General concludes : " Let us prosecute ! " and he himself answers the natural question : Why ? He writes : " To enlighten public opinion ! "

Thus the courts were to exist not for the dispensation of justice, but in order to permit of a public debate settling the question of a lock canal or of a sea-level canal. They were to become nothing more than an instrument for enlightening public opinion by means of a spectacular discussion.

The Final and Well-considered Opinion of the Attorney-General

However, the spirit of the magistrate quickly regained control over the spirit of the novelist. M. Quesnay de Beaurepaire re-read the documents and re-considered the evidence more carefully later on. He then regretted his foolish letter and his still more foolish conclusions. If the first letter deserves censure, the second one redeems the fault.

On the 8th of November, 1892, M. Quesnay de Beaurepaire accomplished an act, perhaps the most honourable of his turbulent life, and one which should earn him pardon for many of its mistakes. He sent to the Minister of Justice, Ricard, his final conclusions. He had had time for serious study. He revoked his preliminary conclusion, he proposed to pigeon-hole the whole business.

He said :

The prosecuting attorney would be unable to show fraudulent intent, which is an essential element of any crime or misdemeanour.

And further :

Nothing has been neglected and all the accusations have been gathered and collected together. The whole history of the Company has been searched and probed. But, in presence of the magistrate, when witnesses had to make precise statements, those who had not vanished entirely presented simple hypotheses or suffered from total lapse of memory.

Later on he added :

I think that in this affair, as in all others, the magistrate must as a primary duty be inspired only by that which is prescribed by law, and not expose himself knowingly to an acquittal, in order to obey considerations foreign to law.

In the desert of slander and cowardice which one has to traverse when reviewing the history of the destruction of the Panama Canal these words are a refreshing oasis.

At last the voice of a magistrate had spoken. At last the crude light of judicial truth shone on the ignominious denunciators and on their fabrications. If called before a magistrate they vanished or they offered mere hypotheses instead of facts, or they had forgotten everything they had said before !

The sky was becoming clearer, the clouds of mendacity were dispersing. France would be able to contemplate her great work freely.

Those associated with it would regain courage and complete their task!

The man who had assumed the responsibility of this noble duty was not capable of evading its consequences. What he had written in a confidential letter to the Minister of Justice [1] he was ready to proclaim before the whole world. The honour of the great French enterprise was saved by Truth and Justice.

But the thing itself was not to be!

Decision of the Minister of Justice, Ricard

The man who was then Minister of Justice in the cabinet presided over by M. Loubet, was a certain M. Ricard, a lawyer of Rouen, former mayor of that town.

Seven years before, on the 5th of March, 1885, he had invited M. de Lesseps to inaugurate an embankment alongside the Seine which was to bear the name of the creator of the Suez Canal.

Here is an extract from the speech then made by M. Ricard:

"The town of Rouen is happy to greet you and to inaugurate in your presence the embankment which is to bear your name.

"Your life has been so well filled and so useful that I do not dream of recalling all the services you have rendered to your country. *The expression of 'Great Frenchman' is on every lip and I can guarantee to you that here it is in every heart.*

"Following the Recorder of the Municipal Assembly, I am glad to repeat that.

"Though still living, you already belong to History, and as to Victor Hugo, so to you, we can unreservedly do an honour which is usually granted only to the illustrious dead. . . . The great works accomplished by M. de Lesseps are popular among us. It is so because we are keenly interested in whatever develops the commerce and industry of France, because we have an absolute and robust faith in the future of the Rouen harbour.

"I could not better characterise this faith than by comparing it to that of M. de Lesseps for the Suez Canal and for the Panama Canal."

This same M. Ricard, seven years later, received from the hands of the Attorney-General a report entirely exonerating M. de Lesseps himself and his gigantic work of the many charges which had been brought against both.

He trampled on the decision of the Attorney-General. He took the personal responsibility of ordering a prosecution which the reasoned opinion of the Chief Justice of the Paris Court had declared to be devoid of any judicial foundation. *He took the responsibility of dragging the*

[1] This confidential letter, of which I gave the above extract, was later on brought to light by the parliamentary inquiry and published.

hero of Suez and of Panama before a criminal court, for reasons, which in advance, the Attorney-General had declared foreign to law.

M. Marinoni, Political Editor-in-Chief of the "Petit Journal," and the Prosecution

This unbelievable act which determined the ruin of the great undertaking closely followed a very unexpected event.

Among the popular daily papers the *Petit Journal*, then directed by M. Marinoni, was the most important. It had largely helped the sale of the Panama bonds and had constituted itself the defender of the scheme.

Suddenly on the 10th of November, 1892, on the eve of the day when M. Ricard replied to the Attorney-General in terms equivalent to an explicit order to undertake a prosecution, a strange article appeared in the *Petit Journal*. It was entitled: "We must see clear." It was signed "Judet."

The aim and the consequences of this article were exposed fourteen years later in a letter which I sent to M. Judet, and which was published in the *Siècle* of the 17th of June, 1906.

Through the combined action of the *Petit Journal* and of the letter of the Minister of Justice the Attorney-General was checkmated. On the 13th of November he in turn answered his Minister. He maintained his matured and final conclusion and explained how his first report of September 10 was superficial and erroneous. On the 15th of November M. Ricard thrust aside the conscientious objections of the Attorney-General and ordered him to begin the prosecution.

Opening of the Political Phase by Judicial Prosecution

This triumph of the enemies of the existing form of government, thanks to the action of one of its Ministers, was for them the signal for beginning fresh operations. The public mind was now impregnated with the idea first produced by M. Drumont's book: *The Last Battle*. Panama was now a work of infamy. Public authority had given its sanction to the legend and adopted it by deserting its mission of justice. It was opening a criminal suit, which the responsible magistrate declared to be without any basis in law, and thereby branded as a monstrous iniquity.

The moment for attack had come. It was necessary to act so that the shower of mud let loose on the Panama enterprise should be so directed as to bespatter the men engaged in politics during its lifetime. That was the real object of the whole manœuvre. On the 21st of November, 1892, the very day that M. de Lesseps was notified of the prosecution, the political phase began.

But it would be a grave error for the historian to follow the exact chronology of events. He would fall a victim of the same confusion which deceived everybody. It behoves us to set aside, for the moment, the political phase, and to follow first the judicial phase to its end. We shall later on turn back to the political crisis.

Ferdinand de Lesseps before the Paris Court

On the 10th of January, 1892, there began before the Court of Appeal of Paris the criminal suit against MM. Ferdinand and Charles de Lesseps, Cottu and Fontane, members of the Board; and Eiffel, contractor of the Panama Company.

It recalled the odious trials of sorcerers in the Middle Ages.

The whole base of the accusation, all the arguments of the public prosecutor were based on the report of an expert.

"Who was this Expert?" will be asked.

Everyone would expect him to have been an engineer of great experience, able to give a reliable opinion as to the management of the works.

No, this expert was an expert accountant, who most likely had never in his life seen a steam shovel.

He was, to be sure, a very honest man, but being incapable of imagining the reasons for and the justifications of the contracts he attributed most of them to extravagant squandering of money.

But in spite of all his efforts he could not discover a single fact contrary to law.

Under such circumstances one may wonder in what the suit lay.

It was just what might have been expected in an action brought for an alleged swindle with regard to which the Attorney-General himself had said, in the freedom of a confidential report to the Minister of Justice: "The prosecuting attorney would be powerless to demonstrate fraudulent intent, which is the substantial element of any crime or misdemeanour."

The witnesses for the prosecution were of the same order as during the magistrate's earlier inquiry. It was possible, after the public trial, to repeat the very words which the Attorney-General wrote exactly four months before it was opened: *All the accusations have been gathered and collected together, the whole history of the Company has been searched and probed, but in presence of the magistrates, when witnesses were forced to make precise statements, those who had not vanished entirely, presented simple hypotheses or suffered from total lapse of memory.*

Never did a criminal suit show more luminously the innocence of those subjected to an iniquitous prosecution.

Never was there such a brilliant exposure of the elementary truth

recalled by the Attorney-General in his letter to the Minister of Justice : *I think, that in this affair, as in all others, the magistrate has a primary duty, to be inspired solely by that which is prescribed by law and he must not obey any consideration foreign thereunto.*

Impossibility of discovering any Breach of the Law

Alas ! these considerations, " foreign to law," were precisely those which dictated the sentence of President Perivier. Its context provoked in M. Barboux this indignant cry of a spirit stung by such an iniquitous proceeding : " Oh, I will no more plead before these people ! " This disrespectful exclamation was quoted in 1912 by M. Roujon, in the speech he pronounced at his reception by the French Academy, where he succeeded the eloquent defender of De Lesseps.

It is President Perivier who deserves to carry the whole weight of this judicial crime and not the group over which he presided and over which he exercised a tyrannical influence. The shame of such a sentence does not sully the honour of the Paris Court of Appeal. It will remain an indelible blot on the memory of the man who was then its President.

As he was incapable of establishing any fact contrary to law or honour against any of the defendants, President Perivier simply manufactured accusations to justify a conviction.

Was this done in malice aforethought ? It was most likely one of the consequences of the strange mental fever which prevailed everywhere. But I am not trying to probe the intentions of President Perivier. I wish solely to call his judgment before the superior court of Truth and History.

As the first judicial inquiry had been initiated on the 11th of June, 1891, the three years' statute of limitations did not admit of the consideration, in the judgment, of anything anterior to the 11th of June, 1888. It must be borne in mind that the adoption of the provisory lock canal project that I had established, gave a firm ground to the Company, whence they could advance with perfect precision and security. The contracts for the sea-level canal had been modified in view of the revised scheme. Eighty million dollars and a maximum of four years were necessary and sufficient from the 1st of January, 1888, in which to open the Canal. The first year of this programme was over. Within that period its conditions had been strictly fulfilled. We were very much in advance of time in the case of the excavation of the locks. Towards the end of 1888 the masons had started work on some of the lock heads. The mounting of the gates and the filling in of the concrete was being begun. Within one year and a half the locks were to be finished, and at the end of 1890 the bottom

of the cut through Culebra would be below the level assigned to the water surface in the summit section of the Canal.

We were certain to have obtained in the second half of 1890 a continuous water-line from sea to sea, which would permit of the passage of ships of small draft and the completion of the Canal in the course of 1891.

The issue of the lottery bonds, specially authorised by a law, was to cover the financial needs of this programme. This issue was the only one which was above any possible criticism; for it was the only one secured upon actual facts and practical experience.

It was the only one also which the law of prescription made it possible for President Perivier to attack.

The Mechanism of a Judicial Crime

It seemed impossible legally to take this issue of lottery bonds as a basis for a conviction.

That was actually done. I will now show how.

It seems exactly as if President Perivier had said to himself in a fit of insanity:

"The Company based its calculations, for the period of construction, on the adoption, in 1887, of a cut through Culebra with a bottom 140 ft. above the sea. For this work three to four years were necessary. Later on, in 1890, say one year and a half after the downfall of the Company, another project was presented. It provided for a cut at the same place, having its bottom 80 ft. above the sea. This lower passage required an amount of excavation nearly twice as great as the former one. It required therefore seven or eight years. Well," continued President Perivier, "it is very simple, the solution consists in appearing to confound the project adopted and carried out by the Company, with the project made a year and a half after it had fallen into bankruptcy. I have only to conceal the essential difference between the two projects and appear to believe that the Company was carrying out the second one and not the first. As the first one necessitated three to four years and 120 million dollars for works and interest,[1] and the second seven to eight years and 180 million dollars for works and interest, I shall by that process have forged the guilty fact which truth has denied me. I shall be able to convict innocent men in order to satisfy public clamour, by saying to them, 'You were deceiving the

[1] The estimates of the Company for their project in 1887 was 80 million dollars for the works, and 40 million dollars for the interests. The estimates of the Guillemain Commission in 1890 were 116 million dollars for the works, and 64 million dollars for interests.

public when you spoke of 120 million dollars and three to four years for completion, since the Commission appointed by the Receiver established that seven to eight years and 180 million dollars were needed.' "

That is the crime of President Perivier, a crime probably committed under the influences of the universal delusion then reigning, but after all a crime against the honour and the interests of France.

To certain readers, this will appear so inconceivable that they may be inclined to accuse me of romancing. Therefore I feel bound to place before their eyes an extract of the essential part of the sentence.

" Whereas if we consult an indisputable document which came into existence *about the time*[1] when the incriminating acts happened; which document is the report of the Guillemain (its President's name) Commission, emanating from the most competent and disinterested men, and constituted by the liquidator Brunet at the beginning of 1890; it will be seen that the works remaining to be done at that date with expenses of all kinds must be estimated at one hundred and eighty million dollars, and that the time necessary for their execution cannot be less than eight years. . . .

" *Whereas Ferdinand de Lesseps and his co-accused cannot maintain that the said report is powerless to prove anything against them, owing to the fact that it only came into existence during the period of liquidation and more than a year after the cessation of their management.*"

Ferdinand de Lesseps and his co-defendants could have objected to the date of the report. They could have said, with all reason and common sense :

" We projected, on the advice of men infinitely more competent and no less disinterested than the members of the Guillemain Commission, a house of bricks. Our estimates of money and time corresponded to the requirements of this structure.

" You convicted us because nearly three years after we formed our project it pleased a group of men, devoid of the experience of our early advisers, to conceive a palace of marble. Our plan was dictated by the real necessities of the enterprise at its initiation. We intended to improve it during the period following its opening to traffic and with the resources which this would create. The Guillemain Commission adopted the plan of a larger structure much more perfected than ours, to be built complete before being put into operation. We deceived nobody when we spoke of the cost and time of construction of our brick house. It is you who have juggled with the facts. It is you who have wilfully deceived the public whom it was your sacred duty to protect in attributing to us plans and estimates of time and money, which pertained to another one, more costly and more difficult of

[1] Said document was signed on May 5, 1890. The incriminating act is the issue of the bonds of June 25, 1888. It was, therefore, not in existence at the time, but two years after the incriminating acts.

accomplishment. Posterity will say that this odious subterfuge is a judicial crime."

This is what Mr. de Lesseps could have said on the day after his scandalous condemnation to five years' imprisonment. But were he speaking to-day he could say:

"If we were guilty of a crime in not foreseeing in 1887 what kind of project for a lock canal would suit the Guillemain Commission three years afterwards, this Commission was guilty of the very same crime and its members also deserve five years' imprisonment. They also deceived the public in not foreseeing in 1890 what kind of project for a lock canal would suit, sixteen years later, in 1906, the American Commission, and in not foreseeing that this Commission would prefer a cut still lower than they did through Culebra, that is to say, 40 ft. above sea level instead of 80 ft.

"The estimated cost of our Canal in 1887, with its cut through Culebra at 140 ft. was 80 million dollars, and it could be easily built in four years for that sum. As to the estimate for the Guillemain Commission Canal in 1890, it was 116 million dollars, but it could not have been built for that amount, any more than the present project of the United States was built for the 139 million dollars, at which sum its cost was fixed by its projectors in 1906. This latter canal will cost, in fact, 297 million dollars, according to the 1909 estimates.

"But it would have been just as easy for us, if not more easy, to build our 1887 Canal for 80 million dollars, and in four years' time, as it has been for the United States to build the present Canal for 297 million dollars, and in nine years' time:

"Because the excavation through Culebra did not go, in our project, below the 140 ft. level above the sea, while in the present case it goes down to a level of 40 ft. above the sea, which means an enormous surplus of rock and earth to remove;

"Because we had no double locks erected side by side, one for raising ships and the other for lowering them, as in the present case, but only single locks, serving for both raising and lowering the ships;

"Because our locks were 65 ft. wide and 590 ft. long, as against 110 ft. and 1000 ft. in the present case;

"Because the bottom width of our Canal through the Culebra cut was 72 ft. as against 300 ft. as in the present case;

"Because we had not, as in the present case, to build a gigantic dam withholding the waters of the Chagres 85 ft. above their normal level, but small dams raising it only 30 ft. at most;

"Because in a word our project of 1887 entailed less than one-fourth part of the work now in hand, and could therefore be executed for less than one-fourth of its cost; and within about half the time

required for the present scheme as our productive power was about one half of what it is now, workmen being then very difficult to recruit on account of the incurable unhealthiness of the Isthmus."

"Yes, M. le Président Perivier," M. de Lesseps could have added, "it is in considering established facts drawn from the works of our successors that it is possible to estimate with accuracy and certainty the correctness of our plans ensuring for the opening of the Canal to navigation in 1891 and the securing to France, through the efforts of her citizens, of the gigantic moral and material profits of this great undertaking.

"This safe and practical Canal was furthermore perfectly adapted to technical as well as to financial necessities, and it would have also been perfectly adapted to the necessities of navigation at the date of its opening.

"On the other hand, our Canal was planned so as to be easily transformable, with a view to meeting the constantly increasing demands of the World's Commerce, until it had reached the complete and perfect form of a free union of the two oceans.

"It is you, M. le Président Perivier, who through your sentence more worthy of an Inquisitor than of a Judge have betrayed the claims of our country, and extinguished the glory of her great task under a mass of misstatements.

"You have done that by wilfully and knowingly confusing our practical project with that imaginary one of the Guillemain Commission, which proposed to make the cut through Culebra 60 ft. deeper, a thing which required twice as much time; by confusing it with that new scheme which was estimated at 36 million dollars more than ours on account of the doubling of the Culebra excavation, on account of the adoption of gemelled locks, on account of its great dam across the Chagres.

"The project of 1890 by the Guillemain Commission was quite different from ours, and much more expensive. It is a despicable thing to have imputed to us such a plan and to declare that we misled people by talking of one project while carrying out another.

"But even admitting that it had been identical with ours as to the structures projected as you have implied; even admitting the only difference compared with ours to have been its greater estimated cost; even admitting it to have been proven in 1890 that our estimate of 1887, say 80 million dollars, was wrong and had to be increased by 36 million dollars, would that fact have justified you in sending to prison, branded as swindlers the men whose whole life had been devoted to the interests and glory of France?

"Look what happened, M. le Président Perivier, in the United States on the same question. The signatories of the actual project estimated

it at 139 million dollars in 1906. Three years later, it was established that its estimates must be increased to 297 million dollars.

"If your sentence had been legal, if an error of 32 million dollars justified a sentence to five years' imprisonment, how many years would an error of 158 have called for ?"

Another reason was given by President Perivier for the conviction of the Hero of Suez and the Creator of Panama.

At the scientific Congress of 1879 the figure of 7,250,000 tons for the traffic of the Canal had been stated. The Guillemain Commission, in its endeavour to avoid any responsibility gave as an estimate of the traffic at the beginning the figure of 4,100,000 tons.

President Perivier took hold of these figures as if the mobile statistics of the future were banking accounts in dollars and cents.

He declared vehemently in his sentence that it was a flagrant proof of fraudulent intent to speak of a traffic of 7,250,000 tons for the Panama Canal.

We can now judge the truth of such a charge.

To-morrow the Canal will be opened. According to the official statistics of the American Government 10,500,000 tons are ready to pass during the first year; and within ten years 17,000,000 without counting the trade created by the Canal.

The law reports of the case, indeed, only serve to exonerate the innocent and stamp the sentence as infamous.

In order to condemn the contractor for the locks, M. Eiffel, President Perivier resorted to an equally abominable subterfuge.

He declared that as to part of his contract he was not a contractor but held a mandate from the Company.

The fact of a contractor being so transformed by the all-powerful will of President Perivier wholly changed the nature of his legal responsibilities. The innocent fact of a contractor having made a profit on this part of his contract, was thereby transformed into a misdemeanour. His legitimate profit thus became money obtained under false pretences.

In this manner were Ferdinand and Charles de Lesseps, Cottu, and Fontane condemned to the maximum penalty for swindling, that is to five years' imprisonment, and Eiffel to two years' imprisonment, the maximum penalty for one who makes illegal profit out of his mandate.

This trial, which began on the 10th of January, 1893, and ended on the 9th of the following February, had characteristics of all criminal trials in which politics are mixed up. It ended as it had begun, the victim of considerations foreign to justice. It is one more added to in the long series of great judicial iniquities, that series which began with

the trial of Christ, which numbers the trial of Joan of Arc, of Christopher Columbus, of Balboa, of Étienne Dolet, and of all the martyrs of the Inquisition. It represents the continual failure of justice in the face of real or fictitious popular fury aroused by jealousy, self-interest, or political passion.

If this trial did not entail the physically tragic consequences of its predecessors, it is because our modern conditions preclude physical torture, and in our day moral torture suffices.

Truth's Revenge

Truth was, however, soon to take its revenge. The Cour de Cassation (the Supreme French Court) on the 15th of June, 1893, annulled the sentence of President Perivier, because he had, among other things, violated the principles governing the statute of limitations. The superior Council of the Legion of Honour gave in its turn a noble example of civic courage. The conviction of M. Eiffel, though quashed by the Cour de Cassation, raised a question of honour which involved the summoning before it of M. Eiffel. He was acquitted and was declared to have committed no act against honour. He thus retained his Cross of Officer of the Legion of Honour.

The public in its turn pronounced its verdict at the elections of August 1893, when the electors refused to re-elect as Representative of Chinon, M. Jules Delahaye, one of the initiators of the nefarious campaign.

The electors of Rouen were more leisurely in their action. But the first manifestations of the resurrection of Panama reminded them of the part taken by M. Ricard in its destruction. On the 27th of April, 1902, Rouen rejected him as parliamentary candidate.

President Perivier retired from the magistracy some few years after this trial. He then engaged in financial undertakings and died. Thus ended a career for ever besmirched by the case of Panama.

CHAPTER XI

THE DESTRUCTION BY PARLIAMENTARY MACHINERY

THE force of facts had brought reaction. The enterprise of Panama emerged freed from the charges directed against it, seeing that none had been established; but all the same it was irremediably wrecked. Slander was to continue to assail it. It was said of the great inert and abandoned undertaking: "Ah, if they had only chosen really to search and probe the question!" In order to anchor this notion in the public mind, politics, which had committed this crime against the nation, had but one object, which was to paralyse any action capable of resuscitating the great work. The refloating of the wreck would be tantamount to condemnation of all those who had criminally contributed to wreck it.

Its final abandonment would be the definite triumph of calumny.

THE MECHANISM OF THE PARLIAMENTARY SCANDAL

The facts I have related prove clearly all that I said at the start. Contradictory political aims joined on the judicial field those whose interest it was to attack the Panama enterprise and those whose duty it was to defend it. The former sought for a basis of attack against the Republican form of government; the latter wished to play a comedy before the masses under the disguise of stern and incorruptible justice.

While this drama was being enacted before the courts, Parliament was the arena in which another struggle, which was to mark the culmination of the scuttlers' efforts, was fought out.

On the 21st of November, 1892, as I have stated, the Attorney-General was passively carrying out, contrary to the dictates of his conscience, the orders of M. Ricard. M. de Lesseps had been summoned before the court. On the same day the parliamentary scandal which preceding events had prepared burst out.

It had as a prelude a dramatic event. The sudden death of Baron de Reinach took place on the night of the 19th of November. The simultaneous facts of the prosecution and his death gave the impression

that Reinach had committed suicide. It seemed an auspicious moment to fight the political battle. M. Jules Delahaye opened fire from the Tribune of the Chamber of Deputies by accusing 150 members of that body of having been bribed.

It was the beginning of a convulsion which was to end by making the Panama enterprise impossible for anybody, owing to the infamous character attached to it. This was to last up to 1904, until the day, that is, when, after endless efforts, I was able to restore it to life and thus avenge its honour.

The alleged corruption of 150 Deputies was a fiction. Its falsity was later on established by facts. France heard it from the lips of M. Jules Delahaye for the first time towards the end of 1892. It may be remembered that the same Jules Delahaye had taken the initiative in exposing, in 1890, before Parliament, the imaginary crimes which, he alleged, had been committed in the management of the works of the Canal. The investigations of the court had demonstrated the absolute falsity of the accusation first made in 1890. The charge was based, it will be remembered, on a document produced by an anonymous personage qualified by M. Delahaye as a *high technical authority.*

Where had this other legend of the wholesale corruption of a mass of deputies, which Delahaye presented in 1892, found its origin ?

It centred round the name of Baron de Reinach, who, indeed, was responsible for its quasi-public dissemination. Were it a fact that wholesale bribery existed, Baron de Reinach alone could have been the corrupter.

There was but little probability that such shameful transactions could have taken place on so huge a scale. If, however, it really were so, what possible interest could have moved the culprit to divulge the crime ?

If he acted thus, as indeed he did, Baron de Reinach betrayed the truth for some reason of his own.

Mysterious Personality of Cornelius Herz

The knot of the mystery lies in an unknown tie which bound Baron de Reinach to Cornelius Herz.

This man, who played the part of a modern Joseph Balsamo or of a Cagliostro, characters belonging more to romance than reality, was a very genius in the art of acquiring an overpowering influence on men. His time, as well as his subtle and powerful intelligence, was devoted to the capture of men. Like a spider he patiently waited for his prey. He neglected all small game, his efforts being centred only on those who possessed power or authority. Thanks to his first captures, he widened his circle of action and increased the number of

those over whom he exerted a dominating influence. By this method he forced the doors of persons supposed to be inaccessible, and obtained through their intervention extraordinary favours and honours. He thus finally succeeded in being created without any plausible grounds a Grand Officer of the Legion of Honour. He was French by birth, American by nationality, and German by origin.

What was the mysterious fact which linked Baron de Reinach with him ? Nobody ever knew. What is certain, is that the Baron was reduced to a state of positive slavery. Little by little his estate diminished owing to his mysterious dealings with Cornelius Herz. Reinach, a rich banker, member of one of the oldest and most respected firms in Paris, died a pauper. And yet his name had never been mixed up with any disastrous speculation. When he could no longer satisfy the demands of Cornelius Herz with his own money, he entered on a criminal path in order to pacify his master.

From its inception Reinach had been connected with the Panama Canal. He had been one of the associates of the first syndicate, which had sent Bonaparte Wyse in quest of a concession. Since then he had been a party to all the financial operations of the Company and had become, so to speak, a sort of quasi-official financial agent.

The Fable of Parliamentary Corruption

The organisation of the syndicates for the issue of bonds was his work. They were necessary for guaranteeing the sales of the bonds issued by the Company. He had more particularly taken charge of the syndicate dealing with the great issue of lottery bonds. He made desperate efforts to keep for his own uses the major part of the money destined by the Company for the remuneration of these syndicates. He tried to convince his associates in these syndicates of the need there was to him of reducing their share of profits and of increasing his own. To support his contention he invented the fable about extortions committed upon him by certain Members of Parliament. It was thus that a great number of persons came to believe in the reality of his assertions and that credit was given to what he said. The legend was treasured by the enemies of the existing form of government, and it was in order to present it in a spectacular form to the nation, that they began to attack the basis of the Panama enterprise. Once that undertaking was wrecked the search for responsibilities would begin. So everybody was asked to accept the legend of bribery and corruption as an established truth.

That is what, in all probability, caused the death of Baron de Reinach. It is possible that he died suddenly of a heart failure accelerated by anxiety and fear. It is possible that he did voluntarily end

his days under the strain of his terrible position. However, that matters little. The cause of his death, whether accidental or not, was certainly his cruel anxiety at having to face the multitude of furious men he had falsely accused. He had terrible accounts to render. It was no excuse for him that the money he obtained in this criminal manner was to satisfy the insatiable greed of his master, Cornelius Herz.

With Reinach disappeared the only witness who, by confessing the truth, might have destroyed the calumnious legend. The repugnant idea that a corrupter could have marched openly through Parliament, buying up with ready money the votes of a fourth of its members, would have vanished immediately.

Certainly no group of men can boast of containing none but incorruptible elements. Individual moral weaknesses are particularly possible among men recruited by party favour and the illusions of electors. But if the moral infection, instead of being sporadic, had been epidemic and general, it would have dishonoured France itself, and not alone a particular system of government.

The researches of the police, the investigations of justice and of the parliamentary commissions, as well as the acquittal by the jury, in 1893 of five, and in 1898 of eight, Deputies accused of "corruption," established that there was no basis for the legend of wholesale bribery. France was cleansed of this infamous charge brought against her national representatives.

There was brought to light, however, one fact which came within the jurisdiction of the law, and of this act the Panama Company was not the perpetrator but the victim. It was the extortion attempted on the Company, in 1886, by the Minister of Public Works, Baihaut, after M. Rousseau had presented his report. The jury were so merciless to the guilty party that their blows even bruised the victim. It cannot, therefore, be maintained that the acquittals they then pronounced were dictated by any special indulgence for the moral shortcomings of politicians.

Attempted Extortion by a High Official

After the denunciation made at the Tribune on November 21, 1892, by M. Delahaye, a parliamentary commission of inquiry was appointed and a judicial inquiry was opened.

On December 16, 1892, MM. Charles de Lesseps and Fontane were arrested. M. Ferdinand de Lesseps was respected. Some days later M. Cottu gave himself up and was likewise incarcerated.

It was before the magistrate in charge of the inquiry that M. Charles de Lesseps exposed the attempt at extortion to which the Company had been subjected on the part of the Minister, Baihaut.

This high official had employed as emissary his confidential agent,

Blondin, a man who up to then had led an honourable life and held a responsible position in a great Paris bank. This man explained to the secretary of the Company that the terms of the Rousseau report gave to his master, the Minister, a choice between a decision favourable to the Company or contrary to its interests.

Under these circumstances, said he, the hesitation of the Minister will be determined by the payment to him of $200,000. This sum, it was added, he needed for certain expenses of publicity having a political character. This vulgar disguise could not conceal the obvious extortion. M. Charles de Lesseps had to defend the savings of several hundred thousands of French families. Their preservation depended on the attitude of the Minister of Public Works. What decision was incumbent on M. de Lesseps under the circumstances? Was it his duty to give publicity to this, and thereby create a gigantic scandal which would rob them, for the future, of the essential support of the Government? He would have thus established his own personal integrity, but at the expense of those who had trusted him. Should he submit to this criminal pressure ? In that case, while protecting the property of an enormous number of share and bond holders, he would sacrifice himself personally and expose himself to the direst and most cruel of accusations.

Of the two alternatives M. Charles de Lesseps generously selected the one which demanded his own personal sacrifice.

" But how can you prove," Blondin was asked, " that the Company is not dealing with a swindler who may prove to be yourself ? "

" It is easy," answered Blondin; " let M. de Lesseps go and see the Minister directly. He will find him undecided as to what decision he has to take. After his return let M. de Lesseps tell me he accepts the suggestion, and let him visit the Minister again. He will find that he has decided to act favourably to the Company."

The experiment was made. There was no longer any possibility of doubt. For safety's sake the Company paid down the money.

Such was the extortion by moral violence which was juridically termed corruption. There was not the slightest trace of corruption anywhere. Yet on account of the misleading description given to this extortion, the victim of the crime was made a victim of justice simultaneously with the criminal himself.

After the opening of the double inquiry, the judicial and the parliamentary information flowed in from all sides. All who had a word to say wished to be heard. The tallies of Reinach's personal cheques were examined. They established his financial relation with certain political personalities. Instead of 150 Members, said to have been corrupted by him in Parliament, he was found to have been in touch with only ten, and with half this number his dealings were obviously

correct. The accusation had to be dropped in their case before the magistrate in charge of the inquiry, and before the court which had to decide on the question of prosecution. The remainder were prosecuted before the Assize Court. On the 8th of March, 1893, besides Minister Baihaut and his emissary Blondin, one Senator, two Members of the Chamber, and three former Members were tried for corruption. The victim of Baihaut, M. Charles de Lesseps, was tried simultaneously with him, as was also the director of the Company, M. Fontane, who had treated with Blondin.

The jury acquitted all the accused with the exception of Baihaut and Blondin, on the one hand, and of M. Charles de Lesseps on the other.

The first was condemned to civic degradation, five years' imprisonment, and a fine of one hundred and fifty thousand dollars. It was the maximum penalty provided by the law. His accomplice, Blondin, received two years' imprisonment.

As to the victim, M. Charles de Lesseps, he was condemned to the minimum penalty provided for corruption of a public officer, namely, one year's imprisonment. The court further decided that this penalty should run concurrently with the former condemnation to five years' imprisonment pronounced by President Perivier, as already stated, and which had not yet been annulled by the decree of the Supreme Court.

In matters of corruption the principal crime is counted to be that of the seducer. It is therefore obvious that the jury and the court marked, by the relative degrees of punishment inflicted, how much they thought the accusation was unjustifiable.

It is clear that the jury was lamentably misled as regards M. Charles de Lesseps.

There had been no corruption of a public official. There had been a clear case of extortion committed by the public official himself.

It is said that the jury was deceived by the mistaken argument of one of its members: "We must, of course, condemn Baihaut. We, therefore, cannot acquit M. de Lesseps, because there can be no corrupted person if there is no corrupter." This would have been true had the sense of the word "corruption" been correct, but it was an obvious misnomer.

The judgment was pronounced on Wednesday, March 21, 1893. On the 4th of July following the Commission of Inquiry of the Chamber of Deputies presented its Report signed by M. Vallée.

One would have thought that the fever of excitement might now decrease, the political conspiracy begun on the 21st of November, 1892, having missed its aim.

Wild Excitement over a Forger: Arton

But there still remained a mysterious personality in the case, who had been an agent of Baron de Reinach. He had taken flight on account of a prosecution for forgery on the part of the Dynamite Company of which he had been a selling agent.

Around the name of this swindler—who later on, after finishing his term of imprisonment ended a dishonoured life by suicide—were centred the last hopes of the sowers of scandal.

The Government was accused of favouring his flight. M. Loubet, who afterwards became the honoured head of the French Republic, was virulently attacked and accused of having prevented his arrest.

He was, however, arrested in London, November 16, 1895, and a demand for extradition was presented. This was to complete the dispersion of the last remaining cloud.

Arton, who was a man of great vanity and greedy of publicity, desired to play a spectacular part in this historical affair. He was a fugitive from common law. Extradition could not make him amenable to French justice for a political crime such as corruption.

During his trial for swindling the Dynamite Company, which ended in his condemnation to eight years' solitary confinement, he spontaneously renounced his immunity from prosecution for a political offence.

A new judicial inquiry was opened which ended on the 27th of March, 1897, with a request to the Chamber of Deputies to authorise a prosecution against three of its members.

This second trial for corruption brought before the Assize Court on December 18, 1897, Arton, with eight co-defendants, three of whom were actual Members and five former Members, of the Chamber of Deputies. They were all acquitted on December 30, 1897. For one of them the trial was postponed until March 1898 for reasons of ill health. That trial likewise ended in an acquittal.

As soon as the request for prosecution reached the Chamber of Deputies, a new parliamentary commission of inquiry was appointed on March 29, 1897.

The Final Political Convulsion

The political fever was setting in again. It was to be the last attack.

The authority of the new commission was without limits and its work without programme.

In point of fact its mission was to find at any cost, and against all evidence, some guilt somewhere. This mission was over when its report was presented to the House at the sitting of January 28, 1898.

The Commission had worn itself out in futile efforts and could produce nothing but damnatory epithets as an outcome of its labours.

The Panama Canal, which France had proved to be physically possible in the face of all obstacles, in which she had expended her generous blood and her gold, which ought to have been acclaimed and lauded, was denounced as a " Gigantic Swindle " and " the Greatest Swindle of the Century."

Suez had been treated in the same way in the English Parliament by Lord Palmerston, the then Prime Minister. It seemed necessary that Panama should be dubbed with similar epithets in a sister Parliament. Posterity will marvel that such words could ever have been used in the French Parliament without calling forth an outburst of indignation, and that no generous protest was made in the name of what had been achieved, in the name of patriotism, in the name of France.

The Spirit of the Two Parliamentary Commissions of Inquiry

I make no pretence to follow in all their details, or to throw light on all the operations of the two commissions of inquiry. This would require several volumes as wearisome as the six filled by their reports. It may not be superfluous, however, to give a passing glance at the character of their researches and of the reports which they issued. It will perhaps modify the views of those who, later on, may try to excuse these commissioners for the anti-French part they played.

Instead of looking for truth, and letting the justice of the facts speak freely for themselves, these commissioners conducted their investigations in the manner of the fanatical tribunals of the Inquisition. Their only aim was to try to perpetuate the miserable legends of extravagance and corruption which the enemies of the Republican Government had set afloat.

I propose to narrate calmly and truthfully certain episodes of which I was an eye-witness. They will suffice to exhibit the spirit that existed and the proceedings employed.

Sowing the Seed of Falsehood

During the trial before the Paris Court of Appeal on the 13th of January 1893, a former employee of the Company came forward and declared that he had resigned on account of certain rumours then in circulation. According to these rumours, said the employee, a commission of twenty-one cents per cubic yard on 27,000,000 cubic yards was to be paid to Baron de Reinach, on account of the handing over

of the Culebra contract from the Anglo-Dutch company to the Artigue, Sonderegger Co. (the one I had formed at the request of the Canal Company).

If that were true—it would have amounted to an unjustifiable and, therefore, probably criminal, commission of about 5,600,000 dollars.

In any court of justice when any one bears witness to rumours only and testifies to no facts he is severely reprimanded by the presiding judge. But that was not the case here.

President Perivier listened with a respectful attention to the distant echo of these slanderous rumours. The prosecuting attorney probably not finding these reports savoury enough, spiced them to his taste. His fertile imagination provided him with figures still more striking. He declared that it was not twenty-one cents only per cubic yard that had been paid in excess to the new contractors, but between thirty and forty-five cents per cubic yard. The proof of it, he said, was that one dollar twenty-five cents was paid to the new contractors instead of sixty to eighty-five cents to the old one. The imaginary commission was thus suddenly lifted from 5,600,000 dollars to a figure between eight and twelve million dollars.

It is indeed difficult to control one's indignation, when one sees that in the courts from the mouths of the most exalted legal officials new falsehoods were put forward.

M. Charles de Lesseps, with that quiet dignity which never deserted him during these trying moments, answered that there had never been a question of any commission either to M. de Reinach or to any other person, but that there had by common consent been an indemnity paid by the Company to the former contractors on cancellation of their contract.

But what did facts matter in such a trial ?

President Perivier concluded his dialogue with M. de Lesseps with this final piece of cynicism : " In this manner the Company gave away six million dollars."

The Falsehood before the Commission of Inquiry

But was not truth to take its revenge before the parliamentary commission of inquiry ? The contracting company, Artigue, Sonderegger & Co., was called before a committee of that commission of inquiry, the so-called sub-commission of contractors.

Artlessly believing that the report of my verbal testimony would be sincere I presented myself in order to speak on behalf of this company, because I had formed, inspired, and directed it. The report of my evidence was never submitted to me for verification, approval,

and signature. A false account of it was printed, omitting the most essential details and misrepresenting my evidence on various points. The only proof of the sincere reproduction of a testimony is the signature of the witness. This was not given. The light thrown by what I said was too crude. It was thought convenient to extinguish it. Instead of reproducing what I had said, an incomplete document was established wherein a bare "yes" or "no" was substituted for my logical and reasoned answers.

This is what actually took place. Having arrived punctually at the hour for which I was called, I took the seat offered me by the usher, and had to wait three-quarters of an hour before the sub-commission thought fit to remember the appointment it had given me. At last one Deputy after another entered an office, the door of which was on the other side of the wide circular room where I was waiting. A singular acoustic phenomenon struck me.

The private conversations that were going on in this office reached my ears with perfect distinctness, in spite of the door being closed and of the great distance between that door and my seat. Suddenly a short thickset man with a bushy black beard passed through the circular room and entered the office. A loud voice, probably his own, exclaimed: "Gentlemen, I have just heard an interesting piece of news. There were on the high staff of the Canal Company at Panama more than thirty escaped or liberated convicts."

The echo of this stupidity had scarcely reached my ears when the door opened, and I was at last invited to enter the mysterious and sonorous room.

I explained to the sub-commission how the Company, being entangled with the Anglo-Dutch contractors at Culebra, had been forced to cancel their contract. They had proved themselves incapable of accomplishing their task. I showed how the Company had appealed to me, after I had had the general management of the works. I related how the Canal Company had asked me to try to save an extremely dangerous situation by forming a contracting company which would permit me to apply without restraint the new methods I had devised. I showed how, after considerable discussion, in which I took no part, the Canal Company had made an agreement with the Anglo-Dutch company, who consented to an amicable cancellation, thanks to an indemnity of twelve cents and three-fourths per cubic yard excavated by their successors.

I explained how this indemnity would not have finally cost one cent to the Company, if the 27,000,000 cubic yards of the sea-level contract had been executed. The Anglo-Dutch contractors were paid one dollar and three cents per cubic yard for the higher portion of the cutting, the prices gradually increasing with the depth. The

general average was one dollar and twenty cents *plus* certain sums as bounties to encourage speed, and for the cost of pumping.

The contract made with the new company gave from the very start approximately that average price, say, of one dollar and seventeen cents, but for the lower portions the prices remained about what they had been.

But instead of the Canal Company the new contracting company undertook to pay the twelve cents and three-fourths to the Anglo-Dutch. The net prices, therefore, paid to the new company for the works at the beginning was the same (except for a difference of about one cent and one-fourth) as that paid to the old one. The Canal Company did, therefore, in fact pay the indemnity at the beginning, but it stood to recuperate itself in the end, if the whole contract was carried out, by the cancellation of the bounties and payments for pumping, conditions which were accepted by the new company.

"Is it necessary to add, gentlemen," I said, "that the conditions under which I agreed to form this company bore no resemblance to the absurd and despicable legend which was first brought forward publicly before the Court of Appeal? The legend of a commission paid to Baron de Reinach is a stupid and malicious fabrication. I did not know M. de Reinach in those days, nor did any of the men who formed the 'Artigue, Sonderreger & Co. society.'"

"Oh, certainly!" exclaimed every one around the table. "Everybody knows it is a ridiculous fiction."

"But, sir," interrupted one of the Deputies, "how do you explain that an indemnity for cancelling the contract should have to be paid to a contractor who did not accomplish his task?"

"Such an act would be indeed inadmissible in France," I replied, "but we are not in France. Facts are correctly understood only if you take into account their surroundings. The Canal Company could not do otherwise. The Colombian laws make no distinction between a contractor and a person holding a lease. Had the Company been obliged with legal authority to eject the Anglo-Dutch company, according to Colombian law a suit would have been necessary, which would have lasted for two years at least. In the meantime the Canal would have come to grief, because at the middle of 1886 there was not a minute to be lost."

"But how much did the Anglo-Dutch company receive on account of this indemnity of twelve cents and three-fourths per cubic yard?" again asked the same Deputy.

"About three hundred and forty thousand dollars," I answered. "And they always asserted that that sum had not covered the serious losses they suffered in this unhappy undertaking."

At this juncture the Deputy asked me a question which literally stunned me.

"Well, sir," he said, "could not a satisfactory judicial decision have been obtained against the Anglo-Dutch company, for a much smaller sum?"

The first moment of surprise over I felt a violent indignation. I retorted: "I am not as well informed as you appear to be about such a shameful transaction as that to which you allude. I never saw nor heard of any such thing being done either in Panama or in France. I do not know what it would have cost. If you want such information you must ask it of some one else."

This answer, pronounced in a cutting tone, produced a feeling of embarrassment among the Deputies. The one who had questioned me made no reply. He bent his head over his paper and began to write.

The serious note struck was soon to be changed by a jocose one.

"What was the moral character of the agents of the Canal Company?" was asked.

"Gentlemen," said I, laughing, "the echoes of your vaulted lobbies have informed me in advance of your reason for asking this question." And I told them what I had not been able to avoid overhearing. I added: "Calumny, gentlemen, is like rabies when transmitted from rabbit to rabbit. At each transmission it becomes more virulent. That story of the thirty convicts is calumny under its most virulent form due to the number of times it had been transmitted from man to man."

"Well," said the short thickset man with the beard, whom I had seen entering last of all, "I am the culprit."

"Not the culprit," I replied, "but the victim; you are the victim of an absurd and entire invention. Not only the upper staff, but the small employees, were carefully examined before being admitted. At the outset less care was taken, any man asking for work was recruited; but a legal certificate was soon afterwards made obligatory, showing that no judgment for misdemeanour of however trifling a nature had ever been passed on the candidate."

The Commission of Inquiry refuses the Light of Evidence

The incident closed amidst general merriment. I said further: "It is necessary, gentlemen, that you should have a just appreciation of the terrible conditions in which the Canal Company found themselves in 1886 on account of Culebra. These conditions led the Company to beg me—I might almost say oblige me—to undertake a dangerous task. It consisted in trying, by means of a contracting company, to find out the solution of a technical problem which then seemed insoluble. The obstacle, against which every effort had been futile

for five years, consisted in the soft and slippery nature of the ground coupled with the extent of the mass to be removed."

The Deputy who had asked me how much money would be required to buy an agreeable and quick judicial decision in Colombia, and who since that moment had continued to write, raised his head.

"Mr. President," he said, "M. Bunau-Varilla enters into technical considerations. Our commission cannot hear him on this point."

The President, who belonged to the opposite party, hastened to echo the Deputy favourably.

"We have," he said, "you will quite understand, only one mission. It is to inquire into the use of the funds entrusted to the Panama Company."

I replied: "It is precisely for this purpose that I feel it to be my duty to give you information explaining a part of their employment. If it is only a list of expenses you require an accountant suffices, and this work was done long ago. Your mission requires you to obtain information as to the reasons of this employment. You have to discover whether it was rational or not. How can I tell you that if I am muzzled as soon as I speak of a technical question? How can you judge the Panama work if you close your ears as soon as the difficulties of its execution and the solutions they entailed are described before you? If you refuse to hear me on the most important point on which I could give you information at the same time tangible and enlightening you will not be friends of light but of darkness."

As these words of common sense seemed to move the President the Deputy replied:

"I absolutely object to any technical question being treated here. We are not competent."

"The Deputies," I replied, "discuss and vote on railways, harbours, etc. They do not refuse to listen to a discussion about such public works because they are not technical men. Hear me at least for a moment. You will see whether what I say is beyond your power of comprehension or not. It seems to me incredible that you should ask for light and refuse it when it is presented to you."

"The Commission has decided not to touch technical questions," interrupted the President.

I could only submit, and I submitted, but every one will understand how indignant I felt.

The Deputy-member of the Commission, who was also a Journalist

Some days later I understood why this Deputy had prevented me from speaking. Under a literary *alias* he wrote on a great daily

paper in a provincial town. Eight days after my evidence he made an unqualifiable attack on me in this paper. He attributed the most revolting motives to the formation of the Culebra Company. He represented me as having promoted this undertaking and taken advantage of my personal authority to have the contract passed.

It was exactly the contrary of the facts, as I had explained them before the commission and as M. de Lesseps had testified before the Court of Appeal. The deputy with the journalistic *nom de plume* had intentionally silenced me so as not to be forced to accept the material proof of the facts. He feared its evidence would make ridiculous a slander in which he fanatically believed.

Unfaithful Account of my Evidence

I understood later on also why my evidence was never submitted for my signature. Had it been faithfully reproduced it would have destroyed the hideous picture of the undertaking of Panama which had to be drawn in order to wreck it once and for all and ruin all chance of its resurrection.

The account given in the report of my evidence was a biased parody of it, and on many points made my meaning incomprehensible. So must the Inquisition have acted. This meritorious paper is entitled : " Testimony of M. Bunau-Varilla."

In a letter to the president of the sub-commission, dated July 22, 1893, I protested against this indignity. I received no answer. The fact was accomplished and the report published.

However garbled my testimony was, the account given did not go so far as to put into my mouth the admission that a commission had been paid to Baron de Reinach.

A " yes " or a " no " was mostly substituted for my complete answers, which deprived them of all their significance. Yet however misrepresented were my answers, what remained of them established that the entire story was an invention.

The liquidator of the Company, to whom the so-called testimony was submitted, completely confirmed what I had said. He quoted on this point the report of the expert accountant, Flory. These observations of the liquidator were printed as footnotes.

I mention this fact, in passing, because it will be interesting to recall it in connection with the second point I shall examine later on.

To finish with this first point, it is clear that I was treated without that impartiality which in every civilised country is observed when recording judicial or parliamentary evidence. This was obviously done because I had the audacity to contradict those who regarded the great enterprise with exasperated hatred.

In the case of all the other evidence given with mine, and most of which was tendered by people who made the most cruel and unjustified attacks upon the Panama Canal, mention is made either of the signature of the witness or of an invitation to him to verify his testimony.

No such mention can be found on my so-called testimony.

This fact alone suffices to show the spirit which dictated the establishment of the so-called parliamentary documents on the Panama Canal.[1]

The Seeds of Calumny bear Fruit

I will now narrate another fact which will give a fair idea of the value of the parliamentary commission's work and of their conclusions.

Some days before the General Report of the first Commission of Inquiry was issued (it was presented to the House on the 4th of July, 1893), the proofs were already circulating among the Deputies. One of them, who was my friend, came to inform me of an extraordinary fact. That ancient fiction—that infamous rumour to which the statement of a former employee of the Company before the Court of Appeal had given rise—had found a place in the General Report of the Commission, and was there solemnly asserted as the truth.

Again, the assertion of a commission of twenty-one cents per cubic yard on 27,000,000 cubic yards, say a payment of 5,600,000 dollars to Baron de Reinach, was repeated with impudent audacity.

On p. 91, in the terse and authoritative tone of a parliamentary document resulting from the work of a parliamentary commission, presided over by M. Brisson, a man famous for his integrity, is to be found the following accumulation of false statements:

"MM. Artigue, Sonderegger & Co. in their turn, when they took over the contract of the Anglo-Dutch company in July 1886, and when they obtained the addition to it of 11,000,000 cubic yards of excavation, which raised to 27,000,000 the number of cubic yards to be removed, were obliged to promise a commission of twenty-one cents per cubic yard to Baron de Reinach, on account of the increased price they obtained."

It was the final phase of the so-called rumour brought before the Court of Appeal by the former employee of the Company.

It had now become an official fact. Its falsity had been shown in turn, first, by M. de Lesseps before the court; second, by myself, before the parliamentary commission; third, by the liquidator of the company, in a footnote printed by the commission itself in its special report relating to contractors; fourth, by the expert accountant, Flory.

[1] From information I had the responsibility for this lay with the president of the sub-commission.

These united efforts had failed to arrest the falsehood. The General Report accepted the slander and embodied it, in spite of all the documentary evidence printed in an appendix to the same General Report, which disproved it absolutely.

The Commission of Inquiry had been called into being to lighten the darkness.

That was its official object. By giving weight and credit to calumny it created such a degree of obscurity that Panama remained hidden in it until adopted and taken up by a foreign country.

I DEMAND SATISFACTION FROM THE REPORTER OF THE COMMISSION

The liquidator of Artigue, Sonderegger & Co., which had been dissolved after the catastrophe, went immediately to see the Deputy who had signed the Report. He was absent and telegrams were immediately addressed to him. At last he returned to Paris. I went to see him myself, not wishing at such a difficult moment to leave the responsibility on the liquidator.

"Mr. Deputy," said I, "I have impatiently borne all the contemptible libels which have besmirched the work of Panama. I have not been able to redress the statements brought forward in Parliament, in the press, or before the courts. Their fugitive character and certain privileges which law and custom have conceded to their authors in Parliament and in the courts, have prevented me from interfering.

"To-day the case is different. I have before me a man, who has asserted, under his signature in a public document, a fact, which, if true, means dishonour for me and, if wittingly false means dishonour for him.

"Well, this statement is as false as a fact can be when it is purely imaginary. It is not an exaggeration, a transformation of a true fact; it is a lie from beginning to end.

"In what you have written, it is false to say that the Culebra Company, when they took up the works, caused the amount of excavation entrusted to their predecessors to be increased. This fact is false, though it is not libellous.

"But you have made another statement which is at the same time false and libellous. It is untrue to say that in connection with the Culebra contract, a sum of twenty-one cents per cubic yard, or any other sum, was paid, or promised to be paid, to Baron de Reinach, or to any other person, as commission, or under any other pretence whatsoever.

"This is proved by the following facts, first, that none of the persons belonging to the Culebra Company knew Baron de Reinach,

even indirectly, at that time; second, that it was at the request of the Canal Company that the Culebra Company was formed, in order to preserve the Canal undertaking from a catastrophe which would have been irremediable had not the problem of the execution of the Culebra Cut been solved by this new Culebra Company.

"I may add that the price given to the new contractors was practically the same as that agreed between the Canal Company and the former contractors, *plus* the amount of the cancellation indemnity. This indemnity the new contractors agreed to pay instead of its being done by the Company itself.

"This indemnity was twelve cents and three-quarters per cubic yard. The old price was one dollar and three cents per cubic yard. The new price fixed was one dollar and seventeen cents. It included the charge of cancellation of twelve cents and three-quarters, which was incumbent upon the Canal Company, but was paid for its account by the new contractors.

"The enormous increase of price of which you speak, and for which the new contractors are said by you to have paid twenty-one cents per cubic yard, is as non-existent as the alleged commission to Baron de Reinach.

"The whole thing is a shameful and mendacious invention.

"This is the truth, and I have come, Mr. Deputy, to ask you to register my protest against this passage in your Report, if it is too late to change it."

A Proof that cannot bear Examination

"But, M. Bunau-Varilla," said the Deputy, smiling, like a man perfectly sure of what he says, "I cannot change anything because I have here the proof that this commission was promised to Baron de Reinach. I have only to stretch out my hand to have this proof."

I answered: "Mr. Deputy, I am speaking to a lawyer, to a legislator, therefore to a man who knows what is requisite to constitute judicial proof. We are here, if I am not mistaken, on the third floor of the building. You may well believe I have no intention whatever of committing suicide. Now, if you will produce the proof you speak of, and if you remain satisfied that it really is a proof, I will undertake to leave this room by the window instead of by the door. Now look at your supposed proof and examine it carefully. I will give you all the time you require, and in the meanwhile I will light a cigar and await your leisure."

The Deputy went into the next room in search of his proof.

When he came back his face was haggard: "Indeed, sir, I am sorry; I regret very much. How can I repair such an error? I shall

immediately go to the Government Printing Office to see what can be done. Sir, you see me greatly embarrassed. I am going to do all I can."

The Deputy showed by his attitude that he was an honest man.

He could not suppress the libellous sentence as the Report was printed, bound, and ready for publication, but he succeeded in having an additional page printed with the title *Errata.*

In this *Errata* he stated that the only basis for the supposed commission was evidence given by the former employee of the Company. He stated that the Culebra Company always protested against this allegation, and that the Report of the expert accountant, Flory, established on the documents both of the Canal Company and of the Culebra Company, does not mention it.

If the honour of the Deputy who made the report was cleared by his sincere desire to repair his error, with what severity must we judge the levity with which libels were accepted as fact by the parliamentary commission, and the difficulty of establishing the truth.

Is not the evident sincerity of the Deputy the best proof of a sort of general intoxication in the political world ?

The whole body had become incapable of listening to reason and truth. Every monstrosity generated by lies and slander was welcomed with open arms.

It is necessary to have passed through this curious phase of political hysteria to believe it to have been possible.

CHAPTER XII

WANT OF AUTHORITY IN THE GOVERNMENT AND THE ILLEGAL ENCROACHMENT OF THE LEGISLATIVE ON THE EXECUTIVE

On the 27th of January, 1898, the parliamentary convulsion ended as it had begun.

M. Drumont, who, in 1890, tried to take the Republic by storm in setting fire to the enterprise of Panama, had written then of Ferdinand de Lesseps : *This scoundrel walks about as a triumphant hero.*

The last echo of that seven years' war came from the mouth of the defenders of the Republic : *It is the greatest swindle of the century.*

The sanguinary battle of political passions had been fought over the great martyred enterprise. Both parties had one desire in common, and that was to proclaim the infamy of the Panama undertaking. Both sides used the same weapon.

A Parliamentary Hysteria lasting Seven Years

For seven years on the technical field, on the administrative field, and on the political field the two hostile groups had been looking in vain for culprits. The howls of the virtuous were drowned by the shrieks of the just. The first said : " Strike down ; " the others replied : " Kill."

In this frenzied search for culprits, which was to besmear many of the most eminent citizens of France, a single fact had been found deserving of condemnation. And even then the Panama Company was not the guilty party but the victim.

The destruction of the Panama undertaking, which began by baseless accusations against the integrity of its management, was prolonged by equally baseless accusations against the integrity of its dealings with public authorities.

Both these phases had their origin before Parliament by the intervention of Jules Delahaye.

Both these interventions were preceded by publications signed or bearing the stamp of M. Drumont. In the first case it was *The*

Last Battle, M. Drumont's book, published in 1890. In the second case it was a series of articles in the *Libre Parole* (*Free Speech*), M. Drumont's newspaper. They were signed *Micros*, and appeared in September 1892.

Such was, in a nutshell, the history of that unprecedented agitation. It held the nation in suspense from June 1890, when M. Delahaye first let loose the dogs of war, until January 1898, when the report of the second parliamentary commission of inquiry was published.

During all that time the precious life blood of this great French undertaking was fast ebbing away.

How could bankers, how could engineers, put their minds to it when the mere mention of the name of "Panama" raised a storm, and when all those who had had anything to do with it seemed tainted?

And yet there was relatively speaking so little to be done to complete it, had only an atom of good faith and of logic remained to temper the frenzy of the combatants, had they for one instant thought sincerely of the good of France.

The old Panama company had in seven years and a half excavated 72,000,000 cubic yards. In the three last years of its existence, 16,000,000 cubic yards per annum had been regularly excavated. On the day of its collapse, at the end of 1888, there remained but 40,000,000 cubic yards to be excavated. Two and a half years' work only were necessary to carry out the programme I had propounded in 1887. It was the programme of minimum effort to obtain a modest form of canal which would be sufficient for immediate use and which could be gradualy and constantly improved and made larger. For this scheme could be substituted another, eliminating the slight imperfections inherent in it for the first years of its operation, and which had been objected to by the Technical Commission formed after the fall of the company. For this new plan, which I published in 1892, a very little more excavation was necessary. Fifty-six million cubic yards had to be removed. It was a question of three and a half years' work.

The Last Spasm of Hysteria: "It's Embezzlement!"

Its aim, therefore, had in fact been attained by the old Company. That undertaking had virtually overcome all obstacles when its progress was stopped by the financial mistake in the issue of lottery bonds in 1888.

To qualify the admirable result of so many generous efforts, a commission of the French Parliament officially and solemnly itself adopted, in 1898, the language with which M. Drumont had stigmatised it after the fall of the Company, when he called it "a swindler's trick." They added nothing to this except the epithet "gigantic." Such

was, for this commission, the result of nine months' study and the knowledge gained by seven years of political agitation!

"A Swindler's trick!" Likening the imaginary railroads of Honduras to the undertaking which was to give us control over the trade of the greatest ocean of the planet!

"A Swindler's trick!" Likening the conception of a great Frenchman to the criminal enterprise of the Marquis of Rays, who abandoned to certain death on a sterile rock the native colonists he had planted there.

"A Swindler's trick!" The thought and creation of France's foremost engineers!

"A Swindler's trick!" The voluntary and heroic self-sacrifice of thousands of French pioneers!

"A Swindler's trick!" The hope of hundreds of thousands of French families!

"A Swindler's trick!" The almost superhuman enterprise against the integrity of which no legitimate charges could be sustained before any court of law or honour!

"A Swindler's trick!" The result of the combined effort of all which makes the moral and material power of a great nation!

"A Swindler's trick!" That is to say, an imaginary and unrealisable undertaking, the enterprise which was to be resumed by America, achieved by America, and was destined to be an eternal monument erected to her glory, when our national genius had conceived it, created it, and virtually completed it.

Ah, if the deadly gases which escape from the "Stagnant Pools"[1] have ever shown their power to poison a national asset, it was when these words "Gigantic Swindle" were written in a parliamentary document!

No political party can wash its hands of this crime. Each has to confess before posterity that it betrayed the great, the true interests of France during an incredible fit of insanity.

If this lesson has not yet been learned by men of all parties in our Parliament, the nation has learned it thoroughly. It is to these facts that may be traced the origin of its persistent anger against its representatives.

Remedy for the Parliamentary Anarchy that killed Panama

The mode of selection of the members of the House is going to be changed. The remedy is not there. The combinations of the "Stag-

[1] M. Briand, in a celebrated speech, characterised the politics inspired by narrow local consideration as the politics of the "stagnant pool."

nant Pools " will be replaced by the combinations of the " Stagnant Ponds." As long as the Cabinet remains the toy of uncertain majorities, each day at the mercy of the subtle work of intrigue and ambition, France will have no Government. The day when the President of the Republic does his duty by sending back to the electors the members of a House which overthrows the Cabinet which itself had chosen, all will change. The terror of re-election will outweigh the desire of wire-pullers to pack the Cabinet for the satisfaction of their personal ambitions. Ministers thus strengthened will resist the pressure of the Deputies, and the Deputies in their turn will learn to resist in turn the pressure of their electoral committees. At last will Ministers have time in which to think of France, and the toads of the " Stagnant Pools " will croak, but no longer be heeded.

Throughout this wretched business no Minister dared speak on the national interests attached to the question without risking immediate fall from office. Had it been possible to do this without endangering the Cabinet's life it would have been done twenty times over. The representatives of the nation would have regained the balance of their minds before the Truth. The disastrous effects of calumny would have been arrested.

The Panama Enterprise was destroyed by the passions developed through the anarchical conditions characterising the organisation of the Public Power in France. It was because of the instability of their positions that Ministers had to remain silent. Let Dissolution be made compulsory whenever a Ministry falls. The Ministers will cease to be terrorised by the fear of a hostile vote. They will cease to be the victims of the menacing appeals of the Deputies, and these, in their turn, will cease to be the victims of blackmailing electors.

The Republic will have found stability, and France a Government worthy of herself and of her great interests.

The detestable state of anarchy, thanks to which the *Destruction* of the enterprise of Panama was achieved is to-day revealed and branded by its *Resurrection*. Let all Frenchmen adopt the resolution which this great lesson entails. Let us oblige our representatives to justify themselves before us, and to submit to an election every time they have made use of their mandate to overthrow the Government.

Were this pious hope to become a reality, the two billion dollars thrown away at the call of Anarchy would not be too heavy a price to have paid for its suppression.

Panama believed to be Dead and Buried for All Time

Those who were responsible for this destruction did not believe that the fatal consequences of their passions would ever be revealed.

They gradually became bolder because they thought that the victim of their rascality was for ever buried. They all believed that France would never see, rising before her, living and triumphant the corpse once trampled down under the heel of civil discord. All believed that the grave had closed over it for ever, and would never reopen and make it possible to sift from the worthy the unworthy sons of the mother-country.

It was my unfailing confidence in its everlasting vitality which all along inspired me. It was the hope of crushing out the libels by which was committed this historical iniquity which sustained me throughout.

On my lonely path towards the distant goal, the resurrection of the murdered cause, and the vindication of the French genius I have kept heart and courage by repeating to myself the words of the poet :

> " A Frenchman is France, a Roman contains Rome,
> And what breaks a nation expires at the feet of a man."

CHAPTER XIII

EFFORTS AT RESUSCITATION OF THE PANAMA UNDERTAKING WITHOUT FOREIGN ASSISTANCE

SOME of the efforts I made, and which finally ended in the resurrection of the Panama enterprise, were contemporaneous with the period of destruction. Some proved futile; others were the dominating factors of the resurrection. I will now review the earlier ones. More than once I could almost hope the goal was reached. Alas! each time some fatality baffled my efforts.

I STAND FOR THE CHAMBER OF DEPUTIES AT THE ELECTIONS OF 1889

As I have already said, I stood, without success, for the elections to the Chamber of Deputies in the Mantes division, with the object of defending the Panama enterprise in Parliament. Though a stranger to the electors up to the eve of the elections, more than six thousand votes were cast for the cause I stood for, but unfortunately my competitor received about 7200.

"WRITE A BOOK, NOT FOR TO-MORROW, BUT FOR TEN YEARS HENCE"

A little later, during a visit to America, I received prophetic advice from my dear friend, Mr. John Bigelow.

It may be remembered he had gone to the Isthmus in 1886 as a delegate of the New York Chamber of Commerce, with his daughter, Miss Grace Bigelow. He never ceased from that time to take an enthusiastic interest in the Panama Canal, which death alone, at the end of 1911, interrupted.

His house was ever open to me as to a member of his family. I did not fail to go and see him when I passed through New York in 1890.

After listening to the narrative of all the difficulties which surrounded the Panama affair, he suddenly said to me: "Write a book." I replied: "But, my dear Mr. Bigelow, who would read it?" "Do not ask that," answered Mr. Bigelow; "if it has not the influence it deserves now, it will have it in ten years' time. You owe it to yourself,

you owe it to your country, to make a faithful statement of the situation at Panama when the works were interrupted, and to show the way out of the difficulties."

Never was wiser advice given me, nor more prophetic word spoken.

On the 20th of March, 1892, the book appeared. Ten years later, in January 1902, the first step towards the resurrection was taken. For the first time in fifty years Panama was declared by an American Scientific Commission to be preferable to Nicaragua.

The book published in 1892 was largely the pivot upon which American opinion had turned. The prophecy had been fulfilled! On my return to France I prepared the outline of the book, and an unexpected event decided me to publish it.

Burdeau consents to take the Leadership of the Revival

The reconstitution of the Panama enterprise could not be effected in France other than by the illuminating influence of some master mind. After having long searched for a man who should be qualified by his intellectual superiority as well as by the fame attaching to his name, I believed I had found in Burdeau just the man I was looking for. Indeed, if ever a man was armed by Nature and circumstances for so high a duty it was he.

He had risen from the most humble ranks of Society. His vivacious and brilliant intelligence had opened wide before him the doors of our highest literary college, *l'École normale supérieure*. The war of 1870 had brought out and disciplined his great qualities. Soldier and prisoner of war, he had effected his escape at great risk from a German fortress to come back and fight once more for his country. The breadth and precision of his mind, his warm and brilliant eloquence, carried him to the front rank when he entered the political field. In 1890 he went to Berlin as a delegate of the French Government to the International Conference on the Socialist question.

The Emperor William II had invited the foreign nations to take a part in this conference, and Prince Bismarck presided over its first meeting.

The extemporaneous speech which that great German statesman pronounced at the opening meeting was listened to in semi-religious silence. To condense his argument he used this brutal metaphor: "To maintain the workmen in peace, we must, and it is a very simple thing, place them between pots of jam on one side and guns on the other."

A gentle but sarcastic voice interrupted: "But that is not so simple. Certainly the jam will be eaten, that is sure, but guns sometimes hang fire."

Bismarck turned his head to see who had had the audacity to shoot this steel-tipped arrow. His look crossed that of Burdeau as one sword crosses another.

Burdeau was of those whose clear and sincere patriotism could grasp the effect the success of Panama would have upon the fame and glory of France. He was also of the smaller number of those whose characters were strong enough to brave calumny, and to throw in the balance all the weight of their devotion to the public interest.

As soon as I spoke to him of the service he could render to our country I saw he would not recoil from the perilous honour.

"Let me first finish my report on the renewal of the monopoly of the Bank of France," he said, "and I shall then devote myself to the study of the Panama question."

I publish, in 1892, a Book on Panama for Burdeau

It was this fortuitous event which determined the publication of my first book on Panama. I finished it in order that I might put in the hands of Burdeau a precise and complete document on which he could base his decision. It appeared on March 20, 1892, and its title was: *Panama—le passé, le présent, l'avenir.* At the same time the hope of at last seeing a chief rise worthy of the great enterprise, has caused a movement in the Press. The heads of the great Paris papers united together to work in common to this patriotic end, and help me in what I was preparing with Burdeau.

After studying the corrected proofs of my book he entirely absorbed the spirit of it; he clearly comprehended the task and the means of carrying it out. I had foreseen in the financial and technical efforts two phases. The first was devoted to the final elimination of the Culebra and Chagres questions, which remained the bases of attack of the enemies of the Canal, though already entirely solved. In order to get over this 35,000,000 dollars were necessary, and I recommended the subscription of this capital by an issue of shares.

The second phase consisted in the completion of a work henceforth devoid of risk. A bond issue of 77,000,000 dollars was to provide the necessary funds. The total estimate was 112,000,000 dollars. It was a very ample one and left a considerable margin of security, owing to the very economical, though very solid, system of construction I had adopted. Finally I had outlined the necessary bill to make final liquidation possible and the transmission of the assets to a new company.

Burdeau finally agreed to abandon political life for this patriotic mission. The press, in its turn, was ready to give adequate support to his generous efforts.

ROUVIER, MINISTER OF FINANCE, AFRAID TO CONGRATULATE BURDEAU

Before raising the war cry he made one request. He asked very little indeed, but what he asked was indispensable. "The Minister of Finance must," he said, "bid me a cordial valediction from the tribune, on my embarking on this crusade. If he does not do so, if he does not thereby give to my decision the truly national character which inspires it, I am as good as beaten in advance. I shall be the aim of a thousand missiles and I shall remain defenceless."

Is it possible to believe that the ten words which would have manifested the Government's cordiality for the supreme attempt of salvage could not be obtained ? He who should have pronounced them was M. Rouvier, the then Minister of Finance. He was scared by the attitude of the Chamber of Deputies.

Some months later, when the political fever burst forth which he had encouraged by his incredible passivity, he must have reproached himself bitterly. He was then to hear the most violent accusations against himself. A demand to authorise a prosecution against him was made to the Chamber of Deputies and granted. But the court decided there was no case against him, and he was free of a baseles accusation. But who will free his memory from the reproach of having paralysed the generous initiative of Burdeau by his cowardly silence ?

In refusing to his colleague so simple a service, he annihilated the most brilliant hopes for the resuscitation of Panama.

Fear of a Cabinet downfall prevented Rouvier from accomplishing his duty as a statesman. Fear of suspicion prevented Burdeau acting without the moral support of the Government.

Some weeks later I sent to Burdeau the following letter on the publication of his report on the renewal of the monopoly of the Bank of France.

"*April* 10, 1892.

"MY DEAR SIR,

"I have just finished reading your admirable report on the monopoly of the Bank, and I must tell you how dazzling is the light you have thrown on all the dark corners of this great and difficult question.

"In revealing once more this master faculty of your mind, which knows how to solve, quickly and clearly, any complex and ill-defined problem, you have revived the sorrow I feel in thinking that this power will not raise and reanimate the wounded enterprise of Panama.

"This immortal undertaking would have given to France, thanks to your efforts, a pacific Austerlitz. Without you it will fall to the level of an industrial Sedan !

"I cannot yet bear the idea that, confronted with such a glorious and perilous task, you have recoiled before the necessity of submitting your intentions to the suspicious and malevolent scrutiny of those who look at all human actions from their own mean standpoint.

"Remember Washington, who was very nearly our contemporary, and who is to-day the legendary symbol of civic duty and patriotic renunciation, who has for sole eulogy upon his statue, the words:

'First in peace, first in war. First in the heart of his countrymen.'

"Remember that this hero of our days was throughout his life persecuted by abominable accusations respecting his integrity.

"Remember that, even nearer to our own day Gambetta and Bismarck were also exposed to the slanders which thrive in democracies, but that did not tarnish the honour nor stop the action of these great citizens for the glory and the well-being of their race.

"If Marcus Curtius were to-day to throw himself into the abyss to safeguard his country there would be men inquiring what personal interest had moved him so to do.

"But the hissing voice of calumny must finally become silent before the greatness of acts and the majesty of accomplishments; and the nation, in her high and profound sense of reality, gives back a hundredfold to him who devotes to her great interests what impotent slanderers have tried to take away.

"But how far we are from the renewal of the monopoly of the Bank of France! Excuse these meditations inspired by the bitterness of my patriotic sorrow.

"Believe me, my dear Sir,
"Very warmly yours,
"P. BUNAU-VARILLA."

Burdeau continued his brilliant career, but was to die before long, in 1894, Speaker of the Chamber of Deputies, which he had enlightened by his clear-sighted mind, and warmed by his burning patriotism.

After his death Burdeau was the object of an infamous accusation by Arton. This man pretended to have given him, as a present, in 1888 a sum of six thousand dollars.

Against the allegation of a convicted swindler I wish to oppose a fact which shows Burdeau's absolute disinterestedness.

At the moment when I was pressing him to devote himself to the salvage of Panama, I asked myself if anxiety for the future of his children was not playing a part in his hesitation.

I opened the question frankly with him: "You are going," said I, "to abandon your political life in order to take a leap into the unknown. If you succeed there is no need of speaking of the material side of your future. If you fail, does not your sense of duty to your family worry you? If that be the case, tell me frankly and let us look for a solution."

He gave me a noble answer, worthy of his noble mind: "I thank you for the thoughtful idea. Yes, indeed, my family's daily bread depends upon my toil. But when I expose myself to peril I desire to avoid all protection in case of defeat. On the contrary, I desire that its consequences should be for me as cruel as possible, in order to increase my ardour in the fight and my determination to win the battle."

Could such a generous conscience have ever debased itself before an Arton ?

I was to meet Burdeau later on, in 1894, as Minister of Finance in connection with the new effort of reconstitution I am going to narrate. In the interval he had been Minister of Marine. His clear and supple genius found there its true sphere. He transformed the conquest of Dahomey into a brilliant feat of arms, thanks to the broad measures he took throughout. Without him the expedition would have dragged lamentably.

The failure of the attempt at reconstitution of the Panama enterprise, which certainly would have succeeded under Burdeau's chieftainship, lay at Rouvier's door.

CHAPTER XIV

EFFORTS TO RESUSCITATE PANAMA WITH THE HELP OF RUSSIA

After my hope of placing the rudder in Burdeau's hands had failed in the early part of 1892, other friends of Panama tried to place M. Christophle at its head.

He was then governor of the *Crédit Foncier*[1] and a political man of considerable importance. In order to overcome his hesitation, and to start the movement they induced a M. Hyelard, a business man, to formulate a proposition to be submitted to the Receiver. It was scrupulously based on the technical and financial programme traced in my book, but just as the negotiations with M. Christophle were taking serious shape, the order to prosecute M. de Lesseps was issued, as I have already said, by M. Ricard. This, in November 1892, entirely destroyed all possibility of a new arrangement.

After the terrible convulsions of 1893 all hope had to be abandoned of ever finding in France a man sufficiently strong to obtain a hearing on the side of reason on this subject. It had become indispensable that the voice should speak first from abroad. We were then in the early days of the Franco-Russian alliance. Why could not this alliance manifest itself here ?

This thought had become to me a veritable obsession, and I was looking for the means of realising it when a fortuitous meeting solved my difficulty.

Chance Meeting with Prince Tatischeff

I had gone to Dortmund, in Westphalia, in order to examine a mechanical process for treating certain minerals which interested me.

The day I returned the weather was cold and misty. I took the early Paris express. There was only one passenger in the compartment and he was asleep. The noise I made when stepping in, and the cold air which penetrated with me, awoke him. He asked in German where we were, and conversation began in that language. Suddenly, in the purest French idiom, with that slight and elegant touch of Russian

[1] A State Bank for loans on real estate.

accent characteristic of aristocratic society, he asked if I spoke French. My delighted affirmative broke the ice completely. To whom was I talking? Had Providence placed in my way the man I was looking for? I turned the conversation to the question of Panama. It seemed to be a quite familiar one to him. I advanced prudently, carefully feeling my ground. Finally I explained to him that the mist of error was so dense at home that nothing but a ray of light resulting from a help coming from abroad could pierce it.

"Of course," I added, "this light should come from a friendly nation."

Up to that moment my mysterious companion had not mentioned his nationality, I had only divined it from his accent.

The traveller understood the hint and replied: "This friendly nation should be Russia, and I can offer myself, sir, to help you there."

He handed me his card, and I read "Prince Tatischeff." It was the very man I had been looking for!

Some days later I left Paris for St. Petersburg. The Prince had preceded me to arrange an interview for me with M. de Witte, the Czar's powerful Finance Minister.

My Interview with M. de Witte at St. Petersburg

The first appointment with M. de Witte was on Saturday, March 24, 1894, at 8 p.m. It was short, as M. de Witte only asked me to postpone our meeting to the following day, Sunday, at 1.30 p.m.

M. de Tatischeff, who had explained the matter to M. de Witte, considered this postponement a very good sign. "M. de Witte," said he, "had fixed Saturday. I thought it was because it fell on the day following an audience with the Emperor. This audience has been postponed to Sunday morning. As he receives you at 1.30 p.m., this obviously means that he desires to shape his answer to you according to the Imperial wishes on the subject."

I explained to M. de Witte how the Panama undertaking, once virtually completed, had been stopped by an error in financial strategy. I showed him how rival factions forgetting national interests, had been led by the force of circumstances to satisfy their hatred for one another by uniting in the destruction of this great national property. I justified the requested intervention of Russia on the following grounds:

First, the newly born alliance between the two nations would find in a common effort a materialisation of their reciprocal aspirations.

Second, in helping to finish the Panama Canal, Russia would find the complement to the great work then just begun: the Trans-Siberian railroad. The Suez Canal, said I, which, viâ the Indian Ocean,

mingles the waters of the Atlantic with those of the Pacific, is the complement of the Anglo-Saxon transcontinental railways uniting the two oceans across the American Continent. In the same manner, the Panama Canal, uniting the Atlantic to the Pacific, is the complement of the Russian transcontinental railroad uniting the shores of the two oceans across the Eurasian continent.

In this way a Franco-Russian highway by rail and water will circle the Northern Hemisphere, corresponding to the existing one of the Anglo-Saxons.

I concluded by saying that this magnificent dream could become a tangible reality within four years if the Russian Treasury or some banks dependent upon this Treasury gave a guarantee of three per cent. to the necessary capital. Such capital, even with very large margins of security, could not run to more than 140 million dollars.[1]

I called M. de Witte's attention to the fact that the net earnings could not in any case be lower than four million dollars, and that, consequently, the Russian guarantee never would become effective, and would remain purely a moral one.

M. de Witte answered that the point to which he attached the greatest importance was the service to be rendered to France. Then he said: "What does your Government think of this proposition?"

I replied: "I have taken good care not to say a word about it to my Government, before knowing your opinion upon it. According to the point of view such a scheme may appear either ridiculous or glorious."

"It is needless to say," he answered, "that the first hypothesis is out of the question."

I added: "I did not speak to any official person, but I consulted a brilliant and sagacious mind, as well as a keen observer and leader of public opinion, M. Adrien Hebrard, editor-in-chief of the *Temps*. Here is what he wrote me;" and I handed the letter to M. de Witte:

"*Paris, March* 12, 1894.

"MY DEAR FRIEND,

"I am going away for some days, and I have only time to send you just a word in reply to your confidential communication, concerning which you may reckon on my discretion.

"Once more I feel your mind in this noble scheme, which, if it were carried out, would do more than all protocols for the 'Great Peace' towards which the Emperor Alexander is visibly working.

"I do not know if you will succeed in making it understood over there

[1] As I have already said, the provisory lock canal I proposed in my book of 1892 required 116,000,000 dollars, with the cut through the divide at an elevation of 140 ft. It was infinitely more easy to make this Canal for the said sum than the actual lock canal adopted by America for three times that sum, because their cut is projected 100 ft. lower, with very expensive and dangerous lock and dam works.

what consequences such a striking event would have for contemporary history. As much as, or more perhaps, than a battle won in common, it would produce an incredible outburst of gratitude and confidence in the public, as well as of enthusiasm in the press of all parties.

"Courage, my dear friend; may your idea be appreciated as by me it is—as both glorious and wise!

"Cordially,
"A. HEBRARD."

My conversation with M. de Witte lasted more than one hour and a half. I showed him, in the most minute detail, how small an effort remained to be put out, and with what security the result could be contemplated.

I showed him, also, what prestige Russia would gain in Asia, from having a share in the opening of the eastern gate of the Pacific.

M. de Witte concluded: "The noble and dignified manner with which M. Charles de Lesseps has supported his great misfortunes has made him an object of admiration to all Europe." Then he added with solemnity: "Without, of course, taking the liberty of guaranteeing the decision of His Majesty the Emperor, I may say to you that any proposition coming from the French Government on this subject would be well received. *His Majesty is always well disposed to hear anything which may present advantages for France.*"

I asked: "Have I your permission, M. le Ministre, to repeat these words to the French Government? In order to avoid any confusion I will repeat them to you. Please to correct me if I misunderstood you."

After listening to me M. de Witte said: "This is perfectly correct. You can inform your Government accordingly."

FAVOURABLE RECEPTION BY M. CASIMIR-PERIER, PRIME MINISTER

I had but to return as quickly as possible to Paris. M. Casimir-Perier was then Premier, and M. Burdeau, Minister of Finance.

Unfortunately the latter gentleman was away from Paris. The heart-disease which soon after was to carry him off had wrought terrible havoc with his constitution. He had gone to Arcachon, in the South of France, for a rest.

In order to place the question before M. Casimir-Perier, I went to see my friend, M. Edouard Lebey, President of the Havas Agency.[1] When I told him what I had done in Russia his emotion was intense. With his great political experience he immediately saw what such a project meant for France. He was literally dazzled by it.

We went to see the Prime Minister. M. Lebey went in first in

[1] A news organisation which plays the same part in France as Reuter in England and the Press Association in America.

order to give a short explanation of the matter, then came back to introduce me, and withdrew.

M. Casimir-Perier could scarcely believe in the reality of the horizon I opened before his eyes. "I thank you, sir," he said, "as much for your idea as for the manner in which you have carried it out. Before going farther I must wait for the return of M. Burdeau, without whose advice I do not decide anything in matters of great importance." He added smiling: "M. Burdeau is a good friend of yours. He has a high opinion of your character and of your value. He calls you the Bonaparte of Engineers."

This flattering manner of referring to Burdeau's friendship for me filled my heart with the hope that I was approaching the longed-for dawn of the Revival of Panama.

I waited some days. When I could no longer restrain my impatience I left for Arcachon. By a happy chance I met, in the station at Bordeaux, the man I was seeking. He had spent the day at Bordeaux, and was returning to Arcachon by the same train. Between Bordeaux and Arcachon I told him the series of events which, once more, made him the umpire of the destiny of Panama.

He was as ardent and patriotic as ever. His mind had lost nothing of its keenness and power. But his body was a complete wreck.

His luminous report on the monopoly of the Bank of France had been scandalously libelled by M. Drumont. "Burdeau," said this writer in the *Libre Parole*, "never wrote such a report. He simply signed what the flunkeys of M. de Rothschild carried to him from their master."

Burdeau had prosecuted the author of this libel before the Assize Court. Drumont had been sentenced to three months' imprisonment, but the manager of the paper, whom the law held also responsible, was acquitted. This was of no consequence in itself. But a busybody hastily reported to Burdeau that both were acquitted. The unfortunate man had a rush of blood to the heart. He fell as if struck by lightning. He never recovered from that tragic mistake.

When I saw him again at Bordeaux he bore on his pale and noble face the marks of a destiny already almost accomplished. But he had resolved to consecrate the last spark of life to the service of his country. He therefore showed real joy at the news of which I was the bearer.

"Stay with me," said he, "two or three days. I shall divide my time between the preparation of the Budget and the Panama question. On my return to Paris my ideas will have matured and my decision taken shape. I shall then confer with M. Casimir-Perier."

We carried out this programme, and I left him three days later, after we had thoroughly talked over the whole question.

On the 20th of April, 1894, at 6 p.m., I received a telephone call, asking me, on behalf of M. Burdeau, to come directly to see him at the Department of Finance.

M. Casimir-Perier ready to accept the Russian Scheme

Burdeau received me immediately and said: "I can dispose of two minutes only. I devote them to you. It is not the Minister who speaks, it is the friend. I have studied the Panama question deeply with M. Casimir-Perier. In order to avoid an industrial 'Sedan,' just as grave as a military 'Sedan,' M. Casimir-Perier has decided to act with Russia, and, even if she does not maintain her attitude, to act alone. He has decided to give a guarantee of interest to the bonds, provided a share capital of twenty million dollars is formed. As for the Russian guarantee, M. Casimir-Perier says, that, if the Imperial Government really holds the views which you believe it to hold, all overtures on their side will be warmly received by the French Government. In such a case we shall take half the guarantee, and if the United States wish to take a share it will be offered to them."

M. Burdeau added: "The Receiver of Panama has been here, and says that he expects to form a company with twelve million dollars capital. I told him that it was not enough, and that twenty were necessary.

"I repeat," concluded M. Burdeau, "that it is the friend who is speaking, not the Minister. M. Casimir-Perier will call you to the Department of Foreign Affairs or will instruct me to notify you within a few days."

I left the office of the Minister my head on fire. At last the reaction was operating. The salutary example I had brought from St. Petersburg was showing the French Government its duty. It was arming itself to challenge calumny and serve French interests.

In the lobby of the Department I met the Receiver. He was on his way to defend the insufficiently vitalised combination, which was to fail so miserably under the name of the "New Panama Company."

A sinister foreboding oppressed my heart. This man was to undo what I had done. Thanks to his proposal the menace of the lapse of the Canal concession on the 31st of October, 1894, was going to disappear. It was this danger which was inciting the Government to advance quickly. He was to give to the politicians what they are always seeking, the possibility of postponing the solution of a difficulty.

The political horizon became cloudy during the following days. The everlasting intrigue prompted by miserable personal ambitions, was beginning to undermine the Cabinet. What is the use of acting for a distant future if we are to die on the morrow? M. Casimir-

Perier waited for the Cabinet's position to be strengthened before summoning me.

Disappearance of the Actors in the Russian Scheme

On May 22, 1894, the Government fell, and with it seemed to disappear the last hope of saving the enterprise.

I went to see M. Burdeau. He confirmed me in my surmise that the solution put forward by the liquidator had withdrawn from my proposition its character of extreme urgency. It had led M. Casimir-Perier to wait for the consolidation of his cabinet.

"But," added Burdeau, "it is only a temporary eclipse of good fortune. Wait awhile; the sun will soon shine again. The Receiver cannot go far with his twelve million dollars. Within a year we shall take the matter up again."

Alas! less than one year later, less than eight months after this conversation, Burdeau was dead (December 12, 1894). Both rulers in France and Russia were dead also: Alexander, on the 1st of November, 1894, Carnot, assassinated on the 24th of June, 1894. M. Casimir-Perier himself, if not physically dead, was politically so. He had been elected President of the Republic, and quitted politics on resigning his office on the 15th of January, 1895.

A terrible fatality seemed to have wiped out all the men, with the exception of M. de Witte, who could have helped to resurrect Panama in France.

CHAPTER XV

STERILISING INFLUENCE OF THE NEW PANAMA COMPANY

THE first efforts for the formation of the New Panama Company had, as I have related, the result of arresting the movement towards the Russian combination.

After the final formation of this Company on the 24th of October, 1894, it was sufficiently obvious that its action would be sterile.

It was composed of honourable men, but men ignorant of the work to be accomplished, and entirely devoid of the enthusiasm, which was so necessary for its revival.

It made no attempt whatever to challenge calumny but rather fled from it. Had it been decently possible to withdraw the name of Panama from the title of the Company it would gladly have done so.

Never a word of homage to the works done by the old company passed its lips.

It closed its doors and windows against all those who had been really active and had done successful work in the old Panama company, thus depriving itself of their experience.

This hermit company undertook to rediscover the Isthmus of Panama. It took them exactly four precious years to do that. On the 16th of November, 1898, it ended its labours by simply confirming all the features of my project published on the 20th of March, 1892, in *Panama—le passé, le présent, l'avenir*. Only, on account of the works carried out in the interval, they lowered by 33 ft. the altitude of the Canal at the summit level through the Culebra. They further substituted a badly devised dam and a water conduit ten miles long, for the easy and simple employment of pumps that I had proposed for feeding the summit level at the beginning. This part of the Canal was to be suppressed soon after the opening of the Canal. It was therefore justifiable to employ pumps for a section that was so soon to be lowered. The virtual identity between the new Panama project and mine, beyond these slight unhappy modifications, was recognised by the president of the *Comité technique* of the New Panama Company who drew up the scheme.

The president of the Technical Committee of the new company,

M. Robaglia, general engineer of the *Corps des Ponts et Chaussées*, said, in a letter to me on the 13th of September, 1898 :

"MY DEAR COLLEAGUE,

"I beg to thank you for having sent me your book on the Panama Canal. The members of the Committee and I have studied this work with the attention it deserves. The surveys which have been made on the ground and the excavation made in the Culebra Cut since it was written have led us, however, to modify a part of your plan.

"I have been personally struck by the comparison you have drawn between the Panama Canal and the Nicaragua Canal. Your demonstration seemed to me luminous. I can explain only by other than technical consideration the persistence of a portion of American opinion in favour of Nicaragua.

"Your devoted colleague,

"A. ROBAGLIA."

FUTILE RESULTS OF THE ACTIVITY OF THE NEW COMPANY

After four years' efforts such then was the result of the New Company's activity.

It was confined to the reproduction (save for certain secondary modifications, which were not improvements) of a project published already two years before its birth.

To be sure the New Company had selected for its Technical Committee men of high scientific attainments, but the men specially competent in connection with Panama had been excluded. The single exception seemed a piece of irony. M. Hersent was requested to join the Committee. Of all the co-operators of the old company, it was he who had made the grossest errors of judgment and shown the least persistence in the presence of difficulties and dangers.

During the ninety-seven sittings which the Technical Committee devoted to corroborating and adopting my ideas published in 1892, I was not once called upon to explain my own views.

And yet how necessary they would have been to the poor hermit company, had its desire of completing the Canal been a sincere one.

The Company had been formed according to the plan I had traced for M. Burdeau in my book of 1892, and after a special legislative enactment as I had suggested. But instead of thirty-five million dollars for the first phase of the work they had at their disposal only twelve. With such a small amount of money, they could not make the works necessary for eliminating the questions of the River Chagres and of the Culebra Cut. The Company was forced to emasculate my programme. But of the two questions of the Chagres and Culebra they selected the latter, which was the less important. Had they selected the Chagres problem and made the works necessary for its solution, they might have, for some few millions of francs more, established a small canal

for the rest of the distance. This small canal would have passed over the Culebra grounds as we left them. It would have rendered practicable the passage of dredges and barges from one ocean to the other. With twelve million dollars it was still possible to make a magnificent demonstration of the complete practicability of the Canal, and thereby provoke the necessary reaction in the public mind.

But the Company, brooding behind closed doors, refused to communicate with anybody, and slowly all public confidence and all hope ebbed away.

In order to cover its responsibility a second time the Company submitted the project of the Technical Committee to a new special committee, for verification and advice. On the 28th of February, 1899, this second committee declared that in its opinion the Company had demonstrated that the Canal could be opened for an expenditure of 100 million dollars. This confirmed for the second time my project of 1892 and its estimates.

The Technical Committee had also announced that ten years were necessary to do the work. This time estimate was grossly exaggerated, being by twice too long.

The works of the old company and those of the American Government both show that this estimate of the time required was dictated by the terror of responsibilities in case of unforeseen delays.[1]

The New Company's Organ: "Les Petites affiches"

After thus losing four and a half years the Company lost six months more, as it was only on November 30, 1899, that the result of its work was made known to the public. The only publicity given to it was an advertisement in the *Petites affiches*, the organ for judicial publications, announcements of bankruptcy, etc.

The Company had succeeded in killing the Panama enterprise. During the whole period of its so-called activity it had endowed it with a funeral character. The symbolical insertion in the *Petites affiches* was the last move in that direction.

[1] One might also add that the incertitude concerning the time of execution largely resulted from the unhappy modifications made in my project of 1892. If this project had been taken as a basis, one year's preparation to set the works again in motion, *plus* three years and a half for the excavation, were sufficient for excavating the 56,000,000 cubic yards necessary. The other works, dams and locks could have been very well done in the meanwhile. The ease with which the excavation could be carried out is established by the following facts. The old company was doing 16,000,000 cubic yards a year. The Americans have been able to increase a little more than twice the number of workmen on account of the recent discoveries in sanitation. They have thus increased in the same ratio the rate of excavation. For this reason the calculation of time, three and a half years, which is based on the work of the old company, is a very wide estimate and could have been reduced in practice. A total of five years was then ample, for reorganisation and work, as I had announced,

They had also eliminated from their project the essential element that I had introduced into the one adopted by the old company—the transformation, by dredges, later on of the first lock canal into a more and more ideal type.

The Company seemed even to have set themselves the task of destroying the very idea of such a transformation. The dredging works I had installed at the two ends of the Culebra section, and which it was so simple to set in motion, were wantonly sacrificed. These works would have experimentally thrown a brilliant light on the feasibility of prosecuting the works, and of lowering the levels successively, by dredging, once the first lock canal was opened. They were criminally destroyed when the New Company began the Culebra works over again. The new, powerful and economical method of excavating by dredges was done away with, and the old, costly, weak system of rasping the slopes by excavators was resumed.

It was the first act of this long resistance to experimental Truth; the trace of it is still visible in the report of Colonel Goethals of 1909. It was the same resistance to scientific Truth which was to lead the two technical parties which divided the International Commission, the "Consulting Board" created by President Roosevelt in 1905, to their absurd conclusions of January 1906. It is the same resistance to Truth which led the American engineers to adopt a form of lock canal by which the fruit of so many labours may be tragically destroyed in a few minutes. Such is the consequence of the refusal to admit the principle of transformation, which we have found already in the Guillemain Commission. In trying to make the lock canal perpetual the American engineers have been led to make it dangerously weak. This I shall explain later on. In trying to make a permanent lock canal the *Comité technique* of the New Company made it too long to build. Its exaggerated estimates of the time of completion has been an important factor of discouragement in France.

First Sign of Life on the Part of the New Company: Offer to Sell

The new Panama Canal Company did nothing to save the great work undertaken and to preserve for France the fruit of her labour. The first exterior manifestation of vitality they gave was the offer to sell the Canal to America.

This desperate solution would have been honourable only if the New Company had done everything in its power to attain the aim for which it had been created.

It had done nothing to that end. Its resolution, therefore, was not honourable.

The offer took the form of a letter to the President of the United States, dated November 18, 1898. It was just two days after the report of the Technical Committee was signed. It may be thought, therefore, that the completion of this report was hurried on by the desire of offering the Canal to the United States. Had not this desire existed it may be presumed that several more years would have been added to the four already taken up in adopting my project of 1892.

Simultaneously with the letter a delegation was sent to America. They arrived in New York on November 28, 1898.

At that moment the United States were in the state of effervescence following upon the war with Spain about Cuba. That reaction of industrial activity which follows all wars gave a turn to the public mind propitious to great enterprises. It was the moment to transform into a reality the Nicaragua Canal, which for fifty years all parties had been demanding.

Its military necessity had been demonstrated owing to the time taken by the iron-clad *Oregon* to make the trip from San Francisco to the Bay of Santiago de Cuba, in order to join the American fleet. The *Oregon* took ninety days to arrive in Cuban waters.

The American Government received with scepticism the offer of a company which had made no efforts whatever to resuscitate the Canal works, but which had passively let the great enterprise sink into oblivion.

It would never have come to anything had I not at that moment again begun my campaign. If America had rejected the Panama project, as it was then almost certain she would, the grave of the French scheme would have been forever sealed.

In making the offer to America the Company virtually signed away its own work. It laid down its arms without fighting. It proclaimed its own decadence without having once appealed to the courage and energy of the nation most interested in the enterprise. It marched to its self-inflicted destiny as an ox to the sacrifice. It was the last moment of the period of Destruction. Contending political parties had prepared it by their activity, the New Panama Company made it inevitable by its passivity.

PANAMA—THE RESURRECTION

This "counterfeit presentment" bears greetings and Congratulations

from

John Bigelow

To his friend

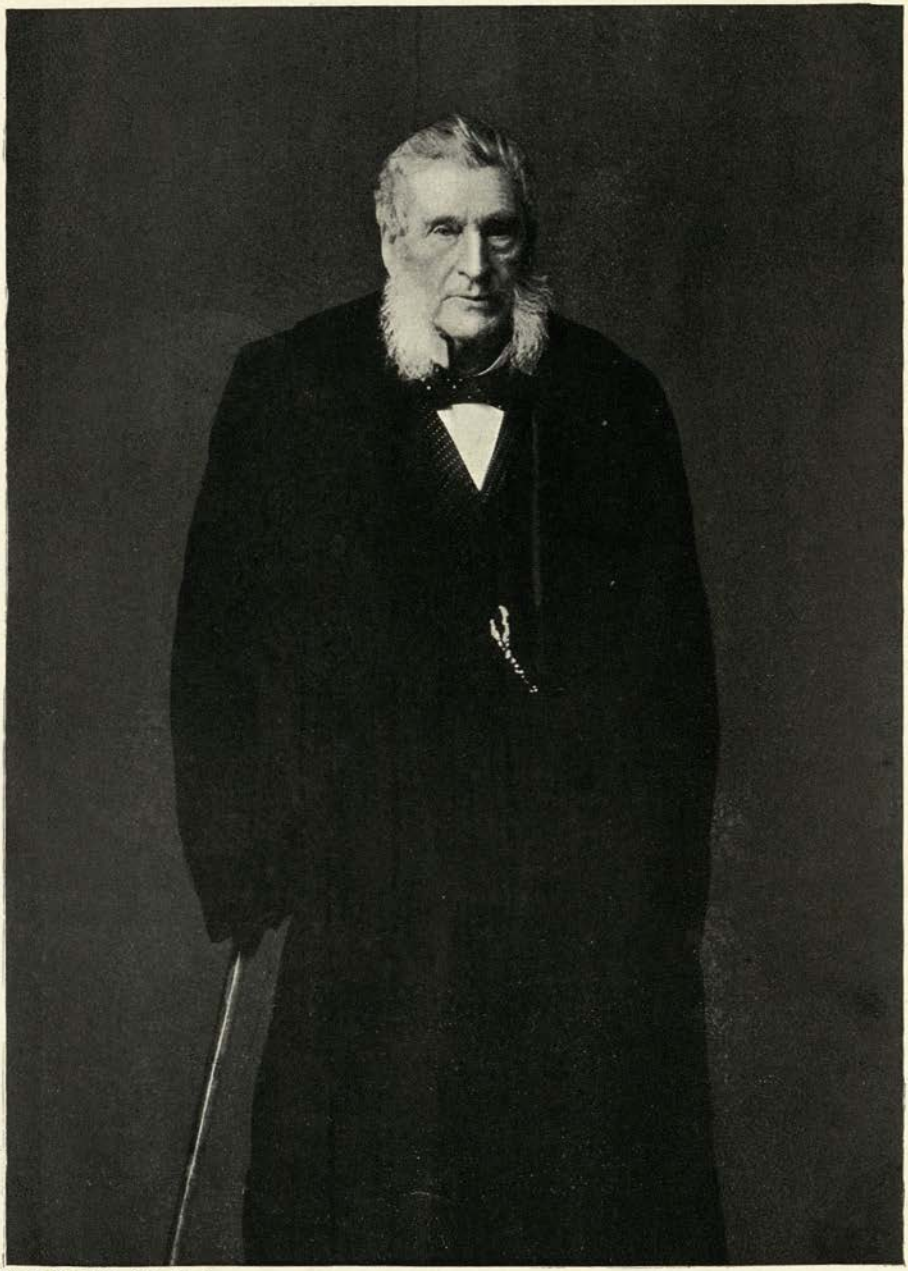
Phillippe Bunau-Varilla,

to whom the World is more indebted than to any other person living, for giving a new Republic to America and also, for securing to the Government of the United States an opportunity of endowing that Republic with a Waterway that shall unite forever the two greatest Oceans of our planet and make E duobus Unum.

21 Gramercy Park

New York February 23 1904

FACSIMILE OF DEDICATION FROM THE HON. JOHN BIGELOW TO THE AUTHOR, WRITTEN ON THE BACK OF THE PHOTOGRAPH REPRODUCED FACING P. 159



Pach Brothers, New York

THE HON. JOHN BIGELOW, MINISTER PLENIPOTENTIARY OF THE UNITED STATES AT THE COURT OF THE TUILERIES, DURING THE WAR OF SECESSION

PART I

THE STRUGGLE AGAINST NICARAGUA

CHAPTER XVI

CREATION OF THE ISTHMIAN CANAL COMMISSION OWING TO DIVISION AMONG THE PARTISANS OF NICARAGUA

As has been already stated, the end of 1898, or the beginning of 1899, was to see, as a logical sequence, the legislative adoption of the Nicaragua Canal by the United States.

EVERYBODY IN AMERICA WANTS THE NICARAGUA CANAL

Public opinion was excited by the fact of the long voyage of the *Oregon* round South America. That fact gave material point to the constant recommendations which, during the previous ten years, all parties had been making in favour of the construction of the Nicaragua Canal. On the other hand the Presidential election, which was to take place in 1900, demanded some kind of action. This action seemed to be necessarily the vote on the project recommended for fifty years by all those who, in America, had the right to speak. The press, the official commissions, the candidates for the Presidency, the political men, everyone—had, before, during, and after the creation of the Panama Canal, condemned it and exalted the idea of Nicaragua.

When it was seen in America that the great enterprise was being systematically destroyed by the French, the certainty of its impracticability was further increased. This destruction was regarded with pleasure in America, because people saw in it the proclamation of the superiority of the foresight and the accuracy of the technical judgment of American mind.

The danger was a terrible one and the final obliteration of the very name of Panama seemed a certainty.

I did not however despair. I frequently exchanged correspondence on the subject with my old and faithful friend Mr. John Bigelow.

Mr. John Bigelow's Letter to Mr. John Hay, Secretary of State

Mr. John Bigelow, in his turn, wrote to Mr. John Hay a letter, of which he informed me on December 1, 1898. It happened that Mr. Hay when a young man had been Secretary to President Lincoln, and that he had been sent as Secretary to the American Legation in Paris after the assassination of Lincoln. Mr. Bigelow was then Minister Plenipotentiary of the United States. Relations of intimate cordiality had been established between the head of the diplomatic mission and the young secretary destined for so brilliant a future.

Here is what Mr. Bigelow wrote to me on the 1st of December, 1898:

"About two weeks ago I wrote to Mr. Hay, our Secretary of State, recommending—as he would be consulted about the President's Annual Message at the opening of Congress—that the President should say what he thought fit about the importance of a transcontinental waterway, but not to commit himself to the Nicaragua route until *he had taken the same measures to investigate the Panama route that he had taken to investigate the Nicaraguan.*".

It was exactly what I wished him to write. The only hope for Panama lay in a new and serious inquiry. The terrible danger was that the earlier sentences which had condemned Panama would be adhered to.

Mr. Bigelow possessed great personal authority. The eminence of his public services, the extraordinary preservation of his faculties, which left him even at the age of ninety-four the mental vigour of a man of fifty, made of him a veritable sage. I have no doubt that his letter to Secretary Hay, written in his eighty-second year, exercised a determining influence on subsequent events.

Not to leave anything to chance he undertook to oppose his personal propaganda to the vote of the Nicaragua Canal; he therefore spent the winter at Washington. He pressed me to join him there in the following terms:

"I persist in the opinion that no one that I know of could do more than you to enlighten our legislators in regard to the superior advantages of the Panama over the Nicaragua route for an interoceanic canal. . . .

"You have satisfied me that Nature anticipated our old friend De Lesseps, in providing for a waterway across this continent at the Isthmus [of Panama], and nowhere else." . . . .

I considered it imprudent to go to Washington at that moment. My presence might have caused the rival factions which divided the Nicaragua party to realise the danger of the competition of Panama, and so have united them against the common enemy.

I preferred to act through intermediaries, who were fighting for Panama because I had convinced them of its enormous superiority.

Mr. Bigelow's opinions had considerable weight, but his age prevented him from giving the benefit of his advice to other than men in high governmental circles. A providential opportunity was given me to acquire an equally precious collaboration which could be exercised in the active sphere of the political world.

M. Percy Peixotto, general manager of the Equitable Life Assurance Society in France, had, in the spring of 1898, put me in touch with a friend of his, Lieutenant-Commander Asher Baker of the U.S. Navy, who was then attached to the General Commissariat of the United States, for the Paris Universal Exhibition of 1900.

His mind was alert, active, and keenly interested in the public welfare. He soon grasped the great importance for the United States of not persisting in the prodigious error of Nicaragua.

He had to spend the autumn and winter at Washington winding up the Exhibition business.

He started resolved to devote his spare time to enlightening his friends in Congress as to the real situation of the Panama Canal. Among them was Mr. Reed, Speaker of the House. He had also friends in common with Mr. Joe Cannon, then Chairman of the Committee of Ways and Means and late Speaker of the House of Representatives.

His official duties and his private relations put him in frequent touch with these two very important men. They were in those days the two most influential personalities in the House. Their authority was absolute, very nearly dictatorial.

Thanks to Mr. Bigelow, light fell on the Government itself through the intermediary of Mr. Hay. Thanks to Lieutenant Baker it penetrated the two recognised heads of the House.

Both my friends had in hand the sequel published in September 1892 of my book on Panama. Its title was *Panama—Le Trafic*. The absurdity of the Nicaragua Canal was demonstrated therein. It was this demonstration which M. Robaglia, in the letter reproduced above, had praised so warmly.

These efforts would, however, have remained quite futile if a providential political situation had not deeply divided the friends of Nicaragua on the eve of victory.

Antagonism of the Leading Partisans of Nicaragua: Morgan and Hepburn

The senator for Alabama, Mr. John T. Morgan, had for twenty years been untiringly pointing out the necessity of building the Nicaragua Canal. He had, of course, sustained and encouraged the Company which had been founded in 1888 for this purpose. He obtained on

January 1899 the vote in the Senate of a Bill adopting the construction of the Nicaragua Canal by this Company, the funds to be provided by the American Treasury. The greater part of its directors were to be appointed by the Government of the United States. The only thing that remained to be done was to have the friends of Nicaragua defend this Bill in the House. It was sure to pass, the unanimous opinion there being in favour of this Canal.

If this had been realised the destiny of Panama would have been forever accomplished before March 1899. Whatever the influence of my two friends on Mr. Hay and on Messrs. Reed and Cannon, or the contrary opinion of anyone else, nothing could have stemmed the overwhelming tide of public sentiment in favour of Nicaragua. Luckily, at the very instant of victory, a dispute arose as to how the credit should be divided.

Colonel Hepburn, a Republican, who had supported the scheme of Nicaragua in the House, had a desire, and a very legitimate one. It was to see the law giving birth to the Canal made according to his ideas and consequently bearing his name. Thus the initiative and the honour of the measure would belong to the Republican party, and to the House. Senator Morgan, a Democrat, was actuated by a similar desire. He wanted the law to be made in favour of the Nicaragua Company according to his ideas. He wished it to be known as the Morgan Law, he wanted it to emanate from the Senate and to bear the stamp of the Democratic party. As each one wished the law to redound to his own glory and to that of his party, and as those parties were absolutely opposed, a terrible conflict ensued.

Politics killed Panama at Paris and saved it at Washington

The Morgan Bill, once adopted by the Senate, was sent to the House. On the 13th of February, 1899, Mr. Hepburn made an almost violent report opposed to its adoption on account of its administrative form. Among other things he said of the future Company :

"The Senate Bill, for which your committee recommend a substitute, proposes to amend the charter of the Maritime Canal Company, and then reorganise the Company by the appointment of a majority of the board of directors by the President of the United States, and then use that Corporation as its agent for constructing and operating the Canal. This Corporation is created by the United States. It is a creature of the Government. After creating it, the Government proposes, by the Senate Bill, to inject itself into the Corporation, and, thus *masquerading*, it proposes to do a work that it is in every way capable of doing in its own proper person. For what purpose should the Government thus convert itself into a Corporation ? How can the United States, as a Corporation, do this work better than by the engineers, the officers of the War Department, it has thus far employed in this class of construction ? " . . . .

As they thought they had nothing to fear from anybody, each one of the opponents refused to yield to the other. The Senate stood by Morgan, the House by Hepburn. Thus the blindness of these two passionate rivalries prevented the adoption of the Nicaragua scheme —their common aim. An infinitesimal matter of form wrecked the attainment of their ambition. Meanwhile the propaganda made by my friends Mr. Bigelow and Lieutenant Baker advanced rapidly. It was sincere and disinterested. The end of the session, on the 4th of March, 1899, was drawing near. President McKinley could not leave the question in suspense till the end of the year.

Order to form the Commission known as the Isthmian Canal Commission

It was absolutely necessary to do something. This something was contained in the advice which I had asked Lieutenant Baker to tender to Messrs. Reed and Cannon, the two great authorities of the House. It was textually expressed in the letter which Mr. Hay had received from Mr. Bigelow. It was to make a fresh study of the whole question. At the very moment when the amused bystanders were asking themselves which of the two was going to win at this game of tug-of-war, the situation was suddenly changed, a resolution was adopted, on the eve of the end of the session, which caused the equal discomfiture of both of the fighters. This resolution provided for the formation of a new commission, the " Isthmian Canal Commission," for the study of all the solutions hitherto proposed, and particularly of the rival ones of Nicaragua and Panama.

How bitter must have been the subsequent regrets of Morgan and Hepburn when they recalled later on the childish strife by which they had postponed the hour of triumph, a triumph which was to be transformed into irreparable defeat.

Later on, in 1902, Morgan, as a last resource, yielded to Hepburn. The Hepburn Bill was voted by the House in January of that year, and Morgan made desperate but futile efforts to get it passed by the Senate.

But in March 1899 neither could have dreamed that Panama would ever present the slightest element of danger for their favourite scheme. Otherwise they would certainly have united forces and Nicaragua would have been quasi-unanimously adopted by both Houses. Nobody opposed Nicaragua, and the Technical Commission appointed on the 4th of June, 1897, and presided over by Admiral Walker, had concluded its labours and declared the scheme for the Canal to be excellent and perfectly realisable. Their report was signed on May 9, 1899, but its conclusions had been long before made public at Washington.

This unexpected result positively stupefied American public opinion. It was to be expected that erroneous theories should rise as to its causes. One of the most singular has only just now seen the light in the following circumstances. During the year 1912 a journalist, Mr. Hall, placed before a commission of Congress various documents referring to Panama. The whole was printed as a Committee document under the title : *The Story of Panama.* Among them is the translation of a brief made by Mr. William Nelson Cromwell, a lawyer in the employ of the New Panama Canal Company. This brief was written by the firm Sullivan & Cromwell, to support a claim for a fee of 800,000 dollars from the said Company before a court of arbitration. In this brief it is asserted that the vote by the House in favour of the Morgan Bill was prevented by the action of Mr. Cromwell or his associates. But as the brief remains silent on the report made against the Morgan Bill by Hepburn, and on the contrary represents Morgan and Hepburn as working simultaneously for a common cause, no importance whatever is to be given to its assertion on this important point. Moreover it is not the only assertion in this brief which is contradicted by facts as established by public documents. For instance, it is enunciated in it that as soon as he was appointed in 1896 as the Company's lawyer, Cromwell had conferences with Colonel Ludlow and influenced favourably to Panama a report that the Colonel had to make on the Nicaragua Canal. The public documents establish that the report in question was in the hands of the President of the United States more than two months before Mr. Cromwell's appointment.[1]

But incorrect accounts given of the causes of great events do not alter their consequences. The capital consequence of this one was to save Panama. The advice given by Mr. Bigelow in November 1898, as well as that of Lieutenant Baker, had been followed.

A competent engineering court was at last to judge Panama without the pressure of the thousand tongues of slander.

It was the first step towards Resurrection. My dear and devoted friends had followed the path I had traced and reached the goal. I wish here to express my heartfelt gratitude to them for the capital service they have thus rendered to Truth and Science, a service which was at the same time of enormous value both to France and to the United States.

[1] The facts above mentioned are fully set forth in the *Statement on Behalf of Historical Truth, by Philippe Bunau-Varilla,* to the Committee on Foreign Affairs of the House of Representatives. On the 19th of February, 1913, the Committee ordered the said *Statement* to be printed in the Hearings on the Rainey resolution.

LIEUT.-COMMANDER ASHER BAKER, U.S.N.

Face p. 164]

Composition and Programme of the Isthmian Canal Commission

On the 10th of June, 1899, the Isthmian Canal Commission was constituted by President McKinley according to the Law of March 3 of the same year.

Everybody thought then that this commission, like all the American commissions which had preceded it, was bound to demonstrate the superiority of Nicaragua. The members of the former Nicaragua Commission formed on July 29, 1897, who on May 9, 1899, had signed a very favourable report, were made members of it. It seemed unlikely that these eminent men would change their opinion by the mere fact of migrating from one commission to another, and thus report unfavourably to Nicaragua. Admiral Walker, who presided over the Nicaragua Commission, became president of the Isthmian Canal Commission. Besides Colonel (later General) Hains and Engineer Lewis Haupt, who had served on the recent Nicaragua Commission, and Mr. Alfred Noble who had been a member of a former Nicaragua Commission (the Ludlow one)[1] was also appointed. Three engineers of great eminence, who had had no previous connection with any scheme, and who were therefore completely independent, became members of the Commission. They were Mr. George Morison, Professor Burr, and Colonel Ernst (U.S.A.).

Besides these engineers there was an economist, Mr. Emory Johnson, and a lawyer, Mr. Pascoe, an ex-Senator of the U.S.

All these members were pre-eminent in their respective professions, and every one of them was convinced, as were France and the United States, that Panama was unrealisable. Four were already morally linked with Nicaragua; two were ignorant of technical questions, and the economic and political considerations were to bring them towards Nicaragua. In this commission of nine which was unanimous for Nicaragua, six formed a solid block for the reasons above stated. The other three believed also Panama to be impossible, and at any rate for patriotic reasons preferred Nicaragua in principle, but their minds were perfectly free for judging the technical question, as they had not been committed to Nicaragua in any way.

It was under these unfavourable circumstances that the battle began. It seemed to be lost in advance, and yet it was finally won.

Twice the Commission recommended Nicaragua: first, in its preliminary report of November 30, 1900; and secondly, in a final, or supposedly final, report of November 16, 1901. However, on January 21,

[1] The Ludlow Commission had been appointed, in 1895, to report on or before November 1 of the same year. The report stated that the time was insufficient for the task: Two years later the Walker Commission was appointed according to the recommendations of the first one.

1902, it was forced by the pressure of circumstances, which I will hereafter relate, to vote unanimously for Panama.

My plan of attack was soon decided. As I had refused to go to Washington the preceding winter, to attack openly the Nicaragua Canal, I resolved not to come in contact at the beginning with any of the six determined partisans of Nicaragua. I decided to plead the cause of Panama before those whose minds were free from any preliminary bias.

Chance served me well. The Commission was split up into various sub-commissions. The members who were delegated for the study of the Panama Canal route were precisely the three members I desired to meet—MM. Morison, Burr, and Ernst.

On the 9th of August the Commission began its labours by leaving for Europe with the intention of studying the maritime canals of Manchester and Kiel and the archives of the Panama Canal in Paris.

Conferences with MM. Morison, Burr, and Ernst

A fortunate circumstance placed me, immediately after their arrival in Paris, in relations with MM. Morison, Burr, and Ernst. The last-named was a friend of Mr. Bigelow and brought a letter of introduction. With the two other members I was soon on excellent terms. A common friend, Mr. Frank Pavey, a prominent member of the New York Bar and former Senator of that State, was the connecting link.

Our conferences were long and frequent. I was gradually able to impress their minds with facts showing at the same time the inferiority of Nicaragua and the admirable superiority of Panama.

I had a strong foundation for my theories. It was formed by the two books I had published seven years before. "Here," said I, "is what I published during the most violent moral storm which has agitated France for many years. If in these books, written for the defence of Panama, you find to-day a solitary fact or a single incorrect figure you may throw them away. If you find nothing erroneous, adopt the conclusions, which are written therein, because they are the expression of the eternal truth."

I was soon able to convince myself that these demonstrations had been fruitful seed fallen on generous ground.

When the Commission left Paris I was certain the scales had fallen from the eyes of at least three of its members.

George Morison's Admirable Character

Among these gentlemen was a man characterised by a great energy of conviction. It was George Morison.

Rockwood, New York]

MR. GEORGE MORISON

Face p. 166]

He had begun life as a lawyer. The profession he had embraced soon left his overflowing need of activity unsatisfied. At an age when fresh studies generally seem tedious he had embraced the engineering profession. He had scrutinised all its elements with a penetrating spirit of analysis and a strong disposition for scientific investigation. He was certainly, when he came to Paris, the most prominent of American engineers. To his professional eminence he added an absolute independence of mind. No consideration whatever could have brought him to temper the expression of his wide and precise views in order to truckle to any influential men or body of men.

The immense injustice of which the Panama enterprise had been a victim, was perhaps what most prompted him to take its side when he was convinced of it. He was its first partisan in the Commission. Nearly simultaneously he was supported by Professor Burr and Colonel Ernst. From that moment the Nicaragua party ceased to be omnipotent. At the contact of the ideas of this group of strong men, and under the radiation of scientific truth, the Nicaragua block gradually melted, the members of the Commission passing one by one to the opposite side.

It was not without prolonged study and serious examination that this transformation was effected, a transformation which greatly honoured, alike those who first saw the Truth as those who gradually turned away from Error. It was a slow but steady fight between Truth and Prejudice.

The chief factor of this gradual transformation was the unflinching character of George Morison. He played, in the formation of the opinion of the technicians, a part similar to that which Senator Hanna played in the formation of the opinion of the politicians, as I shall relate later on.

Both these men risked their popularity and their moral authority in order to overthrow the altar of the false gods. Their courage and their determined character worked this miracle : the unanimous transformation of public opinion which had been crystallised for half a century in a false conception.

I knew both these men at a time when their ideas differed from my own. Both perceived their prejudices melting away before the fire of Truth which I was keeping alive. Both have become the faithful and powerful servants of the great Idea they had been taught from their youth to disdain.

CHAPTER XVII

FRESH EFFORT ON MY PART TO RECONSTITUTE THE ENTERPRISE IN FRANCE, WHILE THE NEW COMPANY SEEKS TO TRANSFER ITS RIGHTS TO AN AMERICAN COMPANY

After their departure from Paris an incident took place which once more gave me the hope of reviving the wrecked undertaking and of preserving it for France.

Inauguration of the Statue of Ferdinand de Lesseps

In the autumn of 1899 a trip to Egypt was organised in order to celebrate the thirtieth anniversary of the opening of the Suez Canal.

An invitation was sent to the *Matin*. I accepted it for myself, hoping to secure a support for Panama among the men familiar with the grandeur of that enterprise and the possibility of its reproduction in Central America.

Among the passengers on the *Indus*, which had been chartered by the Suez Canal Company for their guests, was Sir Edwyn Dawes, a man of considerable importance in the shipping world.

He had succeeded, as president of the great navigation company —the British India Navigation Company—Sir William MacKinnon, the latter being at the same time the founder of the East Africa Company and a co-operator with King Leopold of Belgium in the creation of the Congo Free State.

He was my neighbour at table, and cordial relations were soon established between us. He took a great interest in the Panama question as I exposed it to him. At Suez Mr. George Plate, president of the North German Lloyd Company joined us. He represented German shipping on the Suez Canal Board, Sir Edwyn Dawes being one of the English representatives.

Sir Edwyn Dawes and Mr. George Plate take Great Interest in Panama

Frequent conversations permitted me to convince them that they ought to work for a reconstitution of Panama in France with the co-operation of foreign capital.

We separated at Marseilles after laying a base of common action. Both of them worked actively for the accomplishment of the programme. The greatest English engineer of these days, Sir John Wolfe Barry, who was on the *Indus*, had also conferred with me, and his opinion had most likely not disheartened my new friends. As regards the technical question their opinion had been perfectly enlightened.

Mr. Plate, who was a director of the Deutsche Bank, spoke of our plans to this powerful institution. Mr. Gwinner, its manager, came to Paris for this purpose.

The New Panama Company, instead of receiving these manifestations of good-will with enthusiasm, and developing them, did the contrary.

Moreover the banks could take no step without the moral co-operation of the Governments of England and Germany.

Mr. Chamberlain, then Minister for the Colonies, and at that moment all powerful, received Sir Edwyn's overtures warmly. He declined, however, to enter upon any practical action so long as the difficulties created by the Boer War, then raging, remained unsettled.

These two obstacles to the movement damped the ardour of my friends.

Once more I had tried without success to reanimate public spirit in France, thanks to an offer of co-operation from abroad.

"The Panama Canal Company of America"

While these negotiations were taking place the New Panama Company was again giving proof of its incapacity.

They had virtually accepted an offer to transfer all their assets to an entirely imaginary American company.

This company was called the "Panama Canal Company of America." It was incorporated in New Jersey on December 27, 1899, by the lawyer of the New Company. Nelson Cromwell is mentioned as one of the two persons in whose presence the certificate was signed, sealed, and delivered. The capital of the company was thirty million dollars, but of this respectable total capital there was only five thousand dollars in cash subscribed.

The board of directors of the New Company had, it seems, accepted in principle to transfer all their holdings to this airy nothing calling itself a Company. The French company was to receive in exchange only a part of the paper in the garb of bonds or shares which constituted the real funds of this singular creation. The rest was reserved for ends that were never made public.

Naturally the apparent object of this inexplicable combination was to complete the Canal.

The unknown end of the shares that were held back was alleged to be sold to the would-be subscribers. A complete ignorance of business conditions in the United States was necessary to suppose that such was indeed the real aim. The Law of March 3, 1899, which had provided for the creation of the Isthmian Canal Commission, had decided that the Canal was to be placed under the "authority, administration, and control of the United States."

With such a law any effort to resuscitate in America a private enterprise for the execution of the Canal was doomed in advance. No enlightened mind could seriously contemplate such a combination for a single minute, even had the Panama enterprise appeared to be a desirable one. It was not the case, as the consensus of opinion considered its physical impossibility to be an established truth.

The promoters of this mysterious company must, therefore, have had some other aim in its formation.

In order to discover that aim it will be sufficient merely to read the certificate of incorporation. Its contents were published in one of the documents of the Senate.

The intention seems to appear from the following extract:

"Third: The objects for which the Corporation is formed are as follows:

"*To acquire, by purchase or otherwise, the Maritime Ship Canal* of the Compagnie nouvelle du canal de Panama and the railway across the Isthmus of Panama . . . . to issue shares, bonds, debenture-stock . . . to vary the investments of the Company; to mortgage, pledge, or charge all or *any part of the property, concessions, rights and franchises of the Company, acquired or to be acquired:* to make advances upon, hold in trust, SELL *or* DISPOSE *of and otherwise deal* WITH ANY OF THE INVESTMENTS or securities AFORESAID."

The principal object which was to result from the employment of the capital referred to, a capital having no reality in cash, as we have seen, consisted in acquiring the works, the machines and the concessionary rights of the Panama Canal and of the railroad. It was the principal investment of the Company.

It seems, therefore, that the real aim of the founders of this American Company was to obtain for it the unlimited right to sell its main property, the Canal, once acquired.

The product of the sale, once made, could only be divided between the totality of the shares of the American company.

As the French Company was to own only a fraction of these shares, it appeared that, thanks to these ingenious dispositions, they were to receive a fraction only of the product of the sale of their property.

This subtle combination was invented, as soon as the impression which the Isthmian Canal Commission had gathered from their studies

in Paris began to be ventilated in the United States. The conviction which had penetrated the minds of MM. Morison, Burr, and Ernst had not been weakened by the verifications they made on the Isthmus. From that moment it began to be understood that Panama was no longer a negligible quantity, and the possibility of an adoption of the Panama project began to loom on the horizon. The imaginary "Panama Canal Company of America," with its paper capital of thirty million dollars and its cash capital of five thousand dollars, seems, for all these reasons, to have been conceived in order to secure, at the cost of the real owners a large part of the proceeds of the sale of the Canal to the United States, if this sale was ever to become a reality.

The Representatives of Justice in France opposed to the Transfer

This scheme, which the directors of the New Panama Canal Company had artlessly adopted, was outwitted by the vigilance of the representatives of the French courts: M. Gautron, the receiver of the old company, and M. Lemarquis the representative of its bondholders. On October 31, 1899, they were given cognisance of an extract of the proceedings of the board meeting of October 10, by which the principle of this extraordinary operation was adopted by the New Canal Company. MM. Gautron and Lemarquis protested, and on the 18th of December the New Company's directors maintained, in a second communication, their alleged right to carry out the operation. For their justification they were not even able to explain what amount of capital in paper they were to receive in exchange for the gigantic property. This absurd discussion was ended by the decision of a high legal authority, M. Betolaud, who acted as umpire. The New Company's board was forced to resign three days after the questionable company was incorporated in America.

It would seem as if Mr. Nelson Cromwell, who witnessed the formation of the company, would have had every moral reason for clearing up the suspicions which this creation had aroused. It was extremely important to show that these suspicions were ill-founded. In 1906 he was questioned on this affair before a Committee of the Senate at Washington. He had then a unique occasion to vindicate this creation, or at least to explain it. He refused to take advantage of the occasion and obstinately refused to answer all questions. What surprised all those who knew the facts was the ground he took for refusing to answer. He said in substance that it would be a breach of professional secrecy: that he was the lawyer of the company and could not therefore publicly expose its affairs.

If he acted as the agent of the French company in witnessing the

formation of the American one, then this creation was a pure and simple masquerade of the new French company the object of which remains to be discovered. If on the contrary this American company was really created, as the directors said, with a view to associating new and important American interests with the completion of the Canal, then Mr. Cromwell, in co-operating in its creation, was not acting as the agent of the New Company, but was playing an independent part. Professional secrecy would by no means have been violated had Mr. Cromwell taken advantage of the admirable occasion offered him to throw light on this obscure point of Panama history.

Whatever may have been the real cause of the enigmatic foundation of this company, its action was destroyed by the opposition of the representatives of French justice.

After the resignation of the New Company's board a judicial administrator was appointed by the tribunal to manage the affairs of the company until a new board was elected.

Meanwhile, the members of the old board convened the principal shareholders to an unofficial meeting in order to justify their action. It was a pitiable exhibition. They did not even know what number of shares, in paper, the American company would have granted the French one as compensation for the transfer of the latter's enormous property. They did not even know, consequently, what portion of the proceeds of the sale of the Canal would be attributed to unknown outsiders in case the Canal would be purchased by America. They did not know the ultimate destination of the other shares, and what kind of services they would have to remunerate.

It was a general shrugging of shoulders.

There was no further talk of the company with the capital of thirty million dollars in paper.

CHAPTER XVIII

THE LECTURING CAMPAIGN IN AMERICA AGAINST NICARAGUA

THE year 1900 was taken up with conferences between the representative of the new board and the Isthmian Canal Commission.

"GUESS IF YOU CAN, AND CHOOSE IF YOU DARE"

As it was probably jealous of the laurels won by the old board the new one adopted the attitude of answering neither "yes" nor "no" to the questions of the American Commission: "Do you wish to sell?" and: "For how much do you wish to sell?"

This company, which had done absolutely nothing for the futherance of the Canal, seemed now to devote its efforts to discouraging those who defended on the Commission the idea of Panama.

They admirably succeeded in this task, and the first preliminary report of November 30, 1900, presented by the Isthmian Canal Commission was in favour of Nicaragua.

However, my friends had borne their testimony, and for the first time in an American public document the advantages of Panama were referred to. They were indicated in the general argument supporting the conclusions.

It may even be said that this report opened an admirable opportunity for an offer of sale of $58,600,000 dollars.

It estimated at this figure the difference between the total cost of constructing the Nicaragua Canal and that of finishing Panama.

But the material and certain upshot of the report was that Nicaragua was declared feasible, and its construction was once more recommended, as it had already been recommended by Government Commissions in 1852, 1876, and 1899. American public opinion was jubilantly confident of the triumph of the Nicaragua scheme.

It was now the proper moment for me to intervene to combat that impression and to support the efforts of the friends of Panama in the Commission itself by creating a current of opinion outside of it.

This first victory, coupled with the pressure of political interests, might very well give to the Nicaragua party such a strength as to stifle all resistance. There was no time to be lost.

I receive an Invitation from the Cincinnati Commercial Club

I was reflecting on how it would be possible to realise this idea when, on December 11, 1900, I received a cablegram from Cincinnati, asking me if I was willing to come and expound, before the Commercial Club of Cincinnati, my ideas about Panama and Nicaragua.

The telegram was signed Wulsin—Taylor. The following day answered that I accepted.

What had provoked this providential invitation ?

During the summer of 1900 I went one evening to see a friend living in the Latin Quarter, who was just leaving for a long trip abroad. He happened to be out, and I found myself, about eight o'clock, alone near the Luxembourg Palace. In those days all Paris used to dine at the great Exhibition that was open that year. Such was my intention on that evening, but fearing to be too late I decided to go to the Restaurant Foyot. It was nearly empty, as only one table was occupied by three gentlemen. I was ordering my dinner when one of them rose and advanced towards me. It was Lieutenant-Commander Asher Baker, who, during the preceding year, had so brilliantly served the cause of Panama at Washington. He invited me to join his table, where he introduced me to his friends. They were two great manufacturers from Cincinnati, Mr. Harley Thomas Procter and Mr. William Watts Taylor.

The utmost cordiality prevailed throughout the dinner, and I was not allowed to pay for my share. I therefore invited my new friends to lunch the day after next.

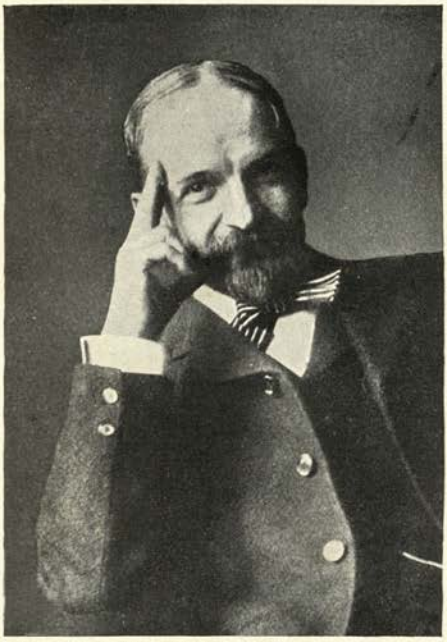
At this second meeting the Canal question was raised and they were deeply struck by views which were entirely new to them.

Their desire that one of their friends, Mr. Wulsin, also a great Cincinnati manufacturer, should become acquainted with these views, was the pretext for a third meeting some days later at luncheon at Laurent's in the Champs Elysées.

Mr. Wulsin showed the liveliest interest in the Canal question. He exclaimed : " In the United States we do not know one word of what you say ! " I answered jokingly : " Well, I will go and tell it publicly to your people whenever you like to give me the signal."

I had thought no more of this fugitive conversation. But six months later, when the Provisional Report of the Isthmian Canal Commission appeared, with its recommendation of Nicaragua, the conversation was recalled in Cincinnati and it was decided to give me the signal. It came in the form of the cable message as I have said.

The fight to a finish was now to begin. The first bugle-note had



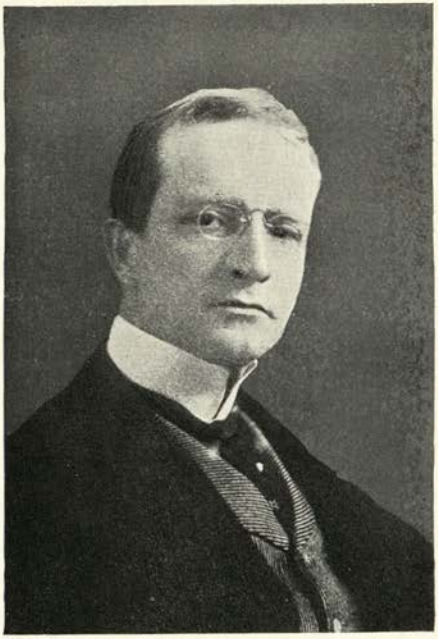
F. van Houten Raymond, Cincinnati]

MR. WILLIAM WATTS TAYLOR

MR. LUCIEN WULSIN

Falk Studio, New York]

MR. JAKE SCHMIDLAPP



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MR. JAMES DEERING

been heard. I hastened to settle up my business affairs and left France on the *Champagne*, on January 5, 1901, for this crusade which was to result in the resurrection of Panama.

On the day following my departure M. Charles de Lesseps wrote me :

"DEAR AND VALIANT FRIEND,

"On the day you left I heard you came to see me : twice I called at your house, but I had the misfortune not to be able to wish you a cordial good-bye. At the hour of my second visit to the Avenue d'Iena you were already on the train.

"Your letter written from the *Champagne* moved me to the depths of my soul by the joyous and warlike note it strikes.

"May your success be as great as your courage. I have faith in you and hope for the future.

"I embrace you with all my heart.

"CHARLES DE LESSEPS."

I was embarking on an apparently impossible enterprise. It was nothing more nor less than to change the settled opinion of eighty million men. My plan was to scour the United States for men who could change the point of view of this huge mass of people; and to try to convert to the new faith, such men as were able to exert great influence, and through them to convert the mass of the nation.

It seemed to be an impossible task. It has nevertheless succeeded. I overthrew the altar of Nicaragua that had stood triumphantly for fifty years.

But the conversion of a huge adverse volume of opinion was not the only task I had to meet. After surmounting that difficulty there remained another—the desire of Colombian statesmen to confiscate the property of the Company for the benefit of Colombia herself.

To the technical and political phase of the struggle against American opinion was to succeed the diplomatic struggle against the will of the lords of the Isthmus.

Victory was as improbable in the one case as in the other. Yet victory has crowned my efforts. The Panama Canal is about to be opened to the World. I desire no other answer to its traducers.

THE WHEEL OF FORTUNE

When I look back over past events I am struck by two facts.

No logical mind would ever have thought possible the complete destruction of the Panama enterprise when it was momentarily stopped in its progress on December 14, 1888.

No one would have imagined that the most splendid, the most precious, creation, in which half a million French families were interested, would be destroyed as it were light-heartedly.

No one would have thought that all political parties would band together in this work of vandalism and that not a man would rise up in either House of Parliament to denounce it.

The destruction of Panama by the French must have seemed a radical impossibility in 1888, yet that is what took place.

On the other hand, no logical mind would have thought possible, in view of the universal enthusiasm of the Americans for Nicaragua, that this scheme would succumb before that of Panama.

No one would have imagined that this idea, adopted ever since the middle of the nineteenth century by America, officially proclaimed in 1876, after seven years of governmental investigations, to be the best possible one would be abandoned in the end.

No one would have believed that this conception, figuring in the political programmes of all parties, this scheme known as a " National Project," and universally admired and cherished in America, would be put aside.

No one would have thought that at the very moment when Colombia was pushing the United States towards Nicaragua by her blind policy, it could be possible to ensure the final triumph of the French project by causing a new republic to spring out of the soil of the Isthmus.

That was, however, what took place. To explain it, it is not enough to repeat that " Nobody is a prophet in his own country."

No. What took place was a mere application of the law of chances.

Unequal division of favourable and unfavourable opportunities always confound human reason. Superstitious minds see in it the action of a supernatural hand. Mystical minds discover therein the intervention either of a protecting or of an avenging Providence. The mathematician sees therein only a consequence of a necessary inequality in the division of chances.

From 1888 to 1900 all the chances were unfavourable to Panama. Everything seemed to work against it.

An unlucky chance, that fatal and irremediable financial error which led the old Panama company in 1888 to overstrain its public credit by demanding an effort three times greater than the usual one.

An unlucky chance, that intellectual cross-sightedness of the " Guillemain Commission " of the receiver, Brunet, which made it set aside the simple, practical, and safe project of the old Company.

An unlucky chance, the cowardice of Rouvier, which prevented him from pronouncing, at the tribune of the House, the few words of official encouragement which Burdeau wanted in order to give the needed impulse to his generous effort for the revival of the undertaking.

An unlucky chance, the error of Quesnay de Beaurepaire, the Attorney-General, that made him inconsiderately recommend a prosecution which he regretted after having studied the files of the inquiry.

An unlucky chance, the attitude of the Minister of Justice, Ricard, which made him order the prosecution for acts which the Attorney-General had declared to be devoid of any unlawful character.

An unlucky chance, the presence at the head of the Paris court of an autocratic and unjust magistrate, whence resulted an iniquitous decree of the same court.

An unlucky chance, the mysterious influence of Cornelius Herz on Baron de Reinach, which caused the latter, in his crazy thirst for money, to set afloat a legend of wholesale political corruption which maddened all parties.

An unlucky chance, those applications to the Minister of Finance, for the formation of the New Company, which retarded the decisions that my visit to M. de Witte had inclined MM. Casimir-Perier and Burdeau immediately to adopt.

An unlucky chance, the death, within eight months, of all the men who had taken an interest in my Franco-Russian combination: the Emperor Alexander the Third, President Carnot, Burdeau, and Casimir-Perier.

An unlucky chance, the extraordinary ideas of the New Company, which led them to reject from the group of their advisers all the men who had won the engineering victories and made them select only those whose efforts had failed in the great struggle.

Finally, an unlucky chance, that bad turn in the Anglo-Boer War which made Mr. Chamberlain postpone the decisive support which was necessary to the last scheme I had prepared for the reconstitution of the French enterprise with the co-operation of English and German capital.

Had only one out of the ten of this continuous series of unlucky chances turned out favourably, on the decisive occasions when they were staked, most likely the salvage of Panama would have been effected.

Each time ill luck turned up the fatal card.

From the end of 1900 everything changed. Throughout the fiery campaign, from this moment on until February 1904, fortune smiled. At every turn of my steps it seemed as if I were accompanied by a protecting divinity. Every time I was in need of a man he appeared, of an event it took place.

I was dreaming of going to preach the Truth in America when the recollection of a six-months' old conversation caused my friends in Cincinnati to invite me there for that purpose. It was the beginning of the series. And the series, as will be seen by the faithful account which I am to give of events which seem almost to belong to romance, was to suffer no interruption.

Everything without exception appeared as if it were pre-arranged

in consonance with the necessities of the battle I was fighting. I was indeed well armed to take advantage of favourable circumstances, to use every one of them as a lever to remove the enormous obstacles accumulated on my path. Still, it was necessary that these circumstances should arise. I will not enumerate them all before giving the account of events. But I can already speak of one of them: the destruction of Saint Pierre on the Island of Martinique by the eruption of Mont Pelée.

It was this extraordinary event, an event which has had no parallel since the destruction of Pompeii at the beginning of our era, which determined the victory of Panama in the American Senate. It took place twenty-four days before the opening of the senatorial debate. And it rendered material and tangible all that I had written and preached for ten years on the dangers to which volcanic action exposed the Nicaragua Canal.

A Travelling Companion mentions Colonel Myron T. Herrick

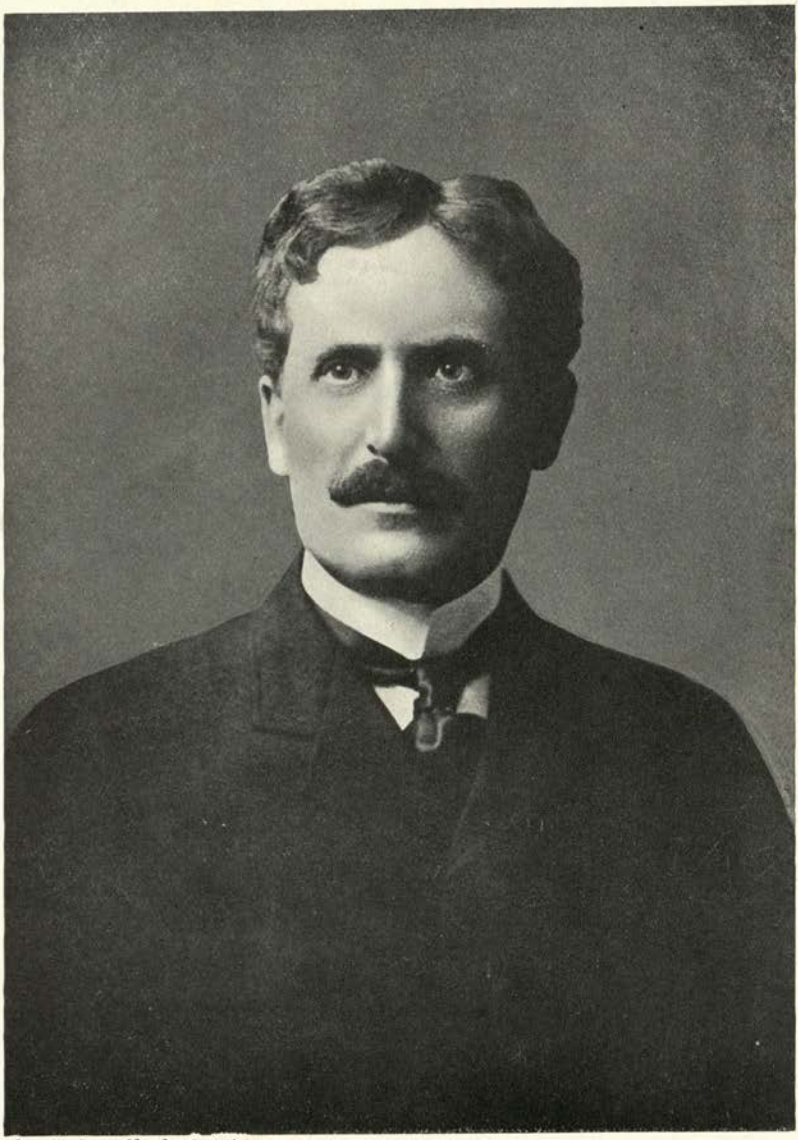
As soon as I arrived on board the *Champagne* the series of favourable chances again became manifest.

I found among my fellow-passengers a man who, in conversation, made a suggestion that was to have an essential influence on the success of my campaign. He was a Roman Catholic prelate, Monsignor Schmitz Didier. An intrepid missionary, his life of proselytism had placed him in contact with men of all kinds. He knew America well and had many friends there. He occupied an important post at the Vatican, and had made the acquaintance in Rome, in the preceding year, of two eminent Americans, by name Colonel Myron T. Herrick and Mr. Calhoun. They had undertaken a yachting trip in the Mediterranean and had visited most of the important places on its shores. It was during their excursion to Rome that they had met Monsignor Schmitz Didier.

This prelate was gifted with enthusiasm for great enterprises. After speaking to him about the object of my trip he said: "I know in Cleveland Colonel Myron T. Herrick. He is a warm, personal friend of President McKinley, and he can help you very much. I should be glad to go to Cleveland to see him and introduce you to him. If you succeed in making him adopt your ideas you will have the most powerful and the most valuable support you could desire."

I did not then realise what a decisive influence on future events this conversation was later on to have.

I met Colonel Myron T. Herrick, and though it was not through



Theo. Eudean, Cleveland, Ohio]

THE HON. COLONEL MYRON T. HERRICK

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Monsignor Schmitz Didier that I made his acquaintance, it was due to this conversation. The Colonel was the friend not only of President McKinley, he also knew intimately a man far more important for my purpose, Senator Marcus Alonzo Hanna, usually called Mark Hanna. He was thus able to render, through this friendship, the most magnificent services to the cause of Panama, and consequently to France, as well as to his own country.

Effect of My First Lecture at Cincinnati

When I arrived in New York Mr. Procter was waiting for me and accompanied me to Cincinnati.

On January 16, 1901, I delivered my first public speech in English on this momentous question. It was after a great banquet at which the *élite* of the Queen City were present. The dinner had been given in my honour, in a large hall gaily decorated with American and French flags.

The members of the Commercial Club, whose guest I was, received me with that charming and easy hospitality which is an American characteristic. Beneath their cordiality, however, I felt an ironic scepticism which was barely concealed. They must certainly have said among themselves: "Why, here is a foreigner coming from a very distant land to make us believe that white is black and black is white! Let us see how he is going to manage the business."

While I was speaking and developing my argument the expression of their faces gradually changed: astonishment took the place of scepticism.

Before I had finished the opinion of my audience had totally changed.

After this first lecture the Society of Civil Engineers of Cincinnati sent a delegation to request me to speak before them.

During my lecture I remarked in the front rank a face which was not unknown to me. I saw that my glance encountered an answering smile. I stepped forward: "You are Bixby, are you not?" I was face to face with one of my fellow-students of the *École des Ponts et Chaussées* of Paris. He was one of the most distinguished engineers of the United States army. His Government had sent him to Paris to study in our great school of civil engineering. When I met him in Cincinnati he was executing important works, based upon French theories, for the improvement of navigation of the Ohio River. A few years later he was placed at the head of his distinguished corps and became its chief. He crowned his brilliant career in 1911 by raising from the waters of Havana Bay the shattered remnants of the *Maine*, the battleship, the explosion of which caused the war between

the United States and Spain. He gave them a fine example of that noble scientific independence which characterises many of the military engineers of America. He declared that, according to his judgment, the explosion had taken place in the interior. It was in formal contradiction with the legend of a criminal attempt, which had so greatly excited the American nation against Spain. Bixby demonstrated then that he knew how to place Truth above all considerations, and in so doing honoured his country.

Through Mr. Schmidlapp, Colonel Myron T. Herrick invites me to speak at Cleveland

I remained some days in Cincinnati overwhelmed by the friendly attentions of my hosts. At luncheon on the day of my departure what Monsignor Schmitz Didier had told me came suddenly back to my mind. I asked: "Do any of you gentlemen know Colonel Myron T. Herrick?" Everybody answered: "Yes, of course, everyone knows him." My neighbour, Mr. Watts Taylor, one of the two Cincinnati gentlemen I had before met in Paris with Lieutenant Baker, said: "Mr. Schmidlapp, who is sitting in front of you, knows him intimately." Most amiably Mr. Schmidlapp offered to arrange a meeting for me with Mr. Herrick. As I thought it might be considered discourteous to make use of Monsignor Schmitz Didier's suggestion without his personal introduction I was on the point of declining the amiable offer. Suddenly I felt a touch on my elbow. It was my friend Taylor, who in a low tone said pressingly: "Accept, accept." I instantly took his advice. Conversation continued on other topics when Mr. Schmidlapp, who had left the table for some moments, returned. "I have just spoken over the 'phone to Herrick," he said: "he will be glad to see you to-morrow in Cleveland. He will invite a set of prominent men to meet you at luncheon." In a few minutes, thanks to Mr. Schmidlapp's action, the series of favourable chances was marked by a circumstance the important consequences of which I realised only later on.

After a twelve-hours' railway journey I arrived, on the morning of the following day, at Cleveland. Shortly afterwards Colonel Myron T. Herrick and his partner Mr. Parmelee paid me a visit of welcome. At one o'clock I was seated at a round table, with twenty of the most distinguished men of Cleveland. A black-board stood behind me. I spoke much more than I lunched. From time to time I rose to make a simple sketch on the board to illustrate my arguments. The explanations were interrupted by many questions which gave me the opportunity to throw light on collateral aspects of the question. This meeting lasted until half-past five in the afternoon. When we rose

from table there remained not an atom of a doubt in any of the minds of my hearers.

Never did a more propitious occasion offer itself, nor a completer success crown my efforts.

All who had listened to me, and whom I had made sincere and deeply convinced believers in Panama, formed the circle of Senator Hanna's intimate friends. His home was in Cleveland, and at that time he was the most powerful man in the Republic, chairman of the Republican Committee, master of the elections.

When he returned to Cleveland two or three days later he heard on all sides echoes of the convictions born of my lecture. "But," said he to Herrick, "what is the matter? A fortnight ago everybody here, as everywhere else, was for Nicaragua. I come back and now Cleveland is solid for Panama."

Colonel Herrick explained to the Senator how this transformation had taken place. From that day forth his door was to be thrown wide open to me and his mind prepared for evolution by the influence of his surroundings. It was only later that I knew of this important fact.

After Cleveland I went to Boston. In that great centre I was again the guest of the local Commercial Club. The chairman of the banquet, Mr. Lucius Tuttle, President of the Boston and Maine Railroad, said in his railway phraseology after hearing me speak: "The United States have taken the wrong track. It leads to a precipice. There is just time to stop the train, to go back to the switch, and take the other track."

I then went on to Chicago. Lieutenant Asher Baker had, through his friend James Deering, the great manufacturer of agricultural machines, organised a reception under the auspices of the National Business League.

Importance of the New York Chamber of Commerce

After all these peregrinations I returned to New York very desirous of speaking before the Chamber of Commerce of that city. It was the most important body of that kind in the United States.

There I met with opinions still heavily opposed to those which my lectures had created.

In spite of the considerable authority of my dear friend Mr. John Bigelow, who requested the President of the Chamber of Commerce to invite me to give a lecture, an invincible and passive resistance made itself felt.

This lack of good-will, this determination to refuse to the cause of Panama the public platform of this great association, only increased my desire of speaking from it.

As I could not go through the door I decided to enter by the window. My friend Mr. Frank Pavey assisted me. He knew intimately Mr. Gustav Schwab, a great New York merchant who was also the general representative of the North German Lloyd. He was one of the most important members of the Chamber of Commerce and very popular. Some meetings with me persuaded his firm and upright mind that truth was on my side. Mr. Jessup, the President of the Chamber, who had obstinately declined to give Panama a hearing, was fortunately absent for some few days. During his absence Mr. Schwab persuaded the Committee of the advisability of inviting me. On his return Mr. Jessup found the matter settled and everything arranged. As a man of good breeding he accepted the fact and presided over the meeting where I developed my theories on the irremediable defects of Nicaragua.

This lecture before the Chamber of Commerce of New York, with others I made at Philadelphia, etc., admirably crowned the period of my public speeches.

I had been invited to speak against the national project of Nicaragua by an eminent body formed by the *élite* of American Industry, Commerce, and Finance; by the Morgans, the Rockefellers, the Carnegies, etc. This gave exceptional weight to the principles I was preaching.

It was the greatest blow that could be inflicted on what amounted to patriotic religion in the cause of Nicaragua which filled the public mind.

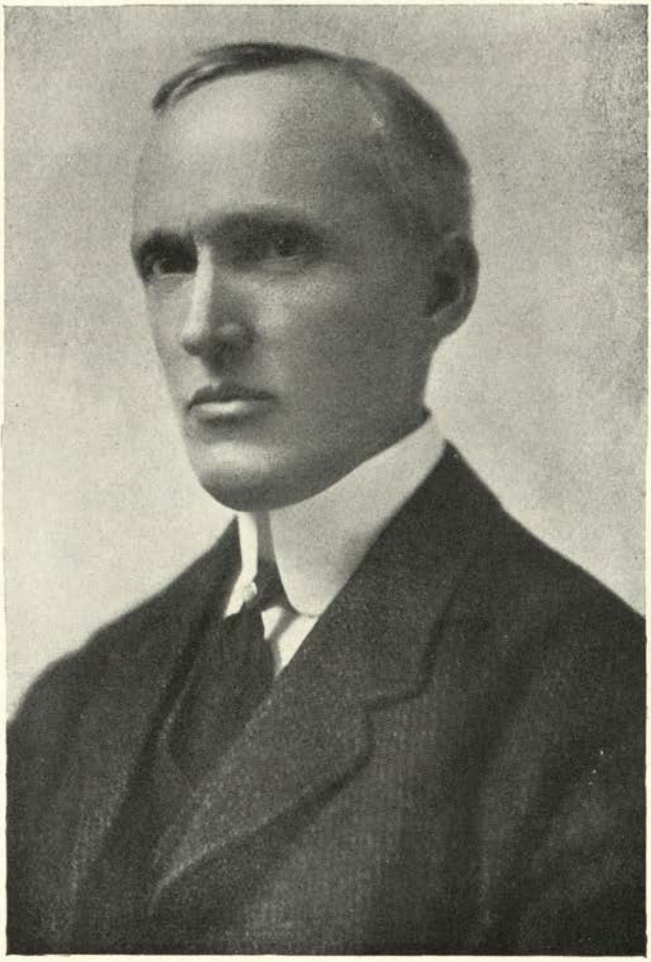
The former Chief Engineer of the Panama Canal, the man who had directed the works of that "impossible" enterprise, had been invited by the most prominent men in America to demonstrate the impossibility of the "National Project of Nicaragua!" What a scandal it appeared to be for many, but what a sign of better weather for myself.

From the point of view of the internal mechanism of the preparation of events, the most important fact had been the Cleveland reception, because it won me Hanna's adhesion. From the point of view of exterior events it was the lecture at New York which, for the first time, openly raised the question of the decadence of the hitherto all-powerful creed of Nicaragua.

I PREPARE A PAMPHLET: "PANAMA OR NICARAGUA?"

It only remained for me to write what I had been saying. Possessed of that new weapon, and preceded by the renown won by the lectures, I could venture to Washington and attack the political fortress.

I devoted myself entirely to that work in New York, and within a few days I had published a pamphlet which I entitled *Panama or*



THE HON. FRANK D. PAVEY

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Nicaragua? I added to it some drawings and diagrams to facilitate the comprehension of the defects and dangers which I laid to the charge of Nicaragua. It was finished on the 20th of March, 1901.

The preface ended thus :

"My purpose has been attained, I have worked for scientific Truth on one of those fields where, as Mr. Carnegie recently and justly said, there is no room for selfish and private aims."

On the grave question of volcanoes I wrote :

"If the experience of four centuries is not a mere byword, if the indisputable proofs, written in letters of fire on the surface of the soil, of the continuous, violent, and increasing volcanic activity in Nicaragua, are not a mere dream, the route over that Isthmus is not only eventually exposed to, but certain, sooner or later, to be the prey of, that uncontrollable power of Nature, before which flight is the only resource."

These words condensed the entire chapter referring to the volcanic dangers. I had shown in it that in 1835 one of the volcanoes of Nicaragua, the Coseguina, had, during forty-four hours, ejected every six minutes a volume of lava and ashes equal to the total volume of the prism of the Nicaragua Canal. I concluded as follows :

"To prefer definitively the Nicaragua route to the Panama route, the unstable route to the stable one, would mean preferring the stability of a pyramid on its point to the stability of a pyramid on its base, when to that stability is attached the prosperity and welfare of a whole continent.

"The Panama route, having no winds, no currents (except on rare occasions), no sharp curves, no sediments, no bad harbours, no volcanoes, enjoys to the highest degree the three essential qualities totally lacking to the Nicaragua solution—

"*Continuity of Operation.*
"*Security of Transit.*
"*Stability of Structure.*

"Besides that, it is three times shorter, will cost much less than the Nicaragua route, and is easily transformable into a Bosporus, the only form that will definitively answer to the worldwide interests to be served by the route, and allow of a passage from ocean to ocean in five hours."

In the pamphlet were inserted eloquent diagrams to the elaboration of which I had devoted my spare time between journeys and lectures. In it I quoted certain facts, borrowed from the very report of the special technical commission, which had recommended Nicaragua on the 9th of May, 1899. These facts enabled me to establish the grave defects of this route. The commission did not seem even to have suspected them.

I meant now to wait until the document was printed before going to Washington.

I also thought it prudent to let some days pass, to allow the new idea which I had sown in the public mind to germinate. Everyone could see a new confession of guilt in every day that elapsed without a refutation from the defenders of Nicaragua of the accusations I had publicly proffered, and which the press had everywhere echoed.

However, a telegram from one of my Cincinnati friends, Mr. Taylor, from whom I had asked for an introduction to Senator Hanna, determined me to hasten to the capital. He informed me that one of his friends, Judge Thomson, had announced my visit to Hanna by letter. I was also provided with a letter of introduction from one of the great bankers of New York, Mr. Isaac Seligman. I wrote to the Senator on Wednesday, 20th of March, from Washington, enclosing the letter from Mr. Seligman, and I made an allusion to the letter that Judge Thomson had probably sent him. I requested him to fix an appointment for any day in the same week or the following one. Having received no answer I decided to return to New York on the 25th of March, the following Monday, to hasten the printing of my pamphlet. I arrived on the 26th somewhat astonished at the silence maintained by the Senator.

Colonel Myron T. Herrick introduces me to Senator Hanna

Towards midnight, as I was about to go out for a breath of fresh air before retiring, I met a party of people in evening dress entering the Waldorf Astoria. My surprise was great when I saw at the head of them Colonel Herrick with a lady on his arm, and behind them Mrs. Herrick, accompanied by a short, stout gentleman who limped slightly.

His characteristic face, so frequently reproduced in the papers was familiar to me. It was the famous Senator Hanna. Colonel Herrick greeted me cordially: "Come," said he, "that I may introduce you to Senator Hanna. He is here with us, and he wishes to make your acquaintance."

"Ah!" said the Senator, "M. Bunau-Varilla, how glad I am to meet you! It is precisely the wish for a long talk with you which made me postpone answering your letter. The fact is, that I am so pursued by business and men, that it is nearly impossible for me to know twenty-four hours in advance where I shall be, and what I shall do. You had given me till the end of the week. I was obliged to leave Washington suddenly. Your letter is in my pocket, I expected to fix an appointment on my return tomorrow. But do not stand on ceremony, come right in when you like.

If I am free we will have a talk; if I am not you will be an excuse for me to get rid of some bore."

The ice was broken, under the best and most cordial conditions. I was henceforth to be received at Senator Hanna's house, under the auspices of his best and most faithful friend, Herrick.

But the good luck of that evening was not to stop there. I was walking to and fro in the wide lobbies of the hotel, when a friendly hand touched my shoulder. It was Mr. Woodward, former Assistant Commissioner-General of the United States at the Exposition of 1900.

"My dear M. Bunau-Varilla," he said, "I am here with the intimate friend of President McKinley, Mr. Dawes, Controller of the Currency. He will be charmed to know you, and may be very useful to you."

A moment later he introduced me. "Mr. Dawes," I said, laughing, "I have a letter of introduction to you from your friend and great English namesake, Sir Edwyn Dawes. However, I had decided not to present it."

"Why not?" said the astonished Mr. Dawes.

"Well," I replied, "it is because Sir Edwyn gives me there a qualification which is not mine. He sent me, when I was leaving, this letter, which I had not asked for. He certainly meant to say, that I was undertaking a crusade here in the interest of the 'Panama Canal.' His secretary undoubtedly misunderstood him, and wrote instead: 'in the interest of the Panama Canal *Company*.' The difference is essential. I have nothing to do with the Company. I am a soldier of the 'Idea of the Canal,' but I have no connection near nor afar with the Company, which has to take care of the material side, and which I must say in passing, is, in my opinion, fulfilling its task very badly. To avoid any confusion I had not intended visiting you, and I meant to return his letter to Sir Edwyn. But, as chance has brought us together, I may tell you everything."

Mr. Dawes, a man still young and of a remarkable intelligence, laughed heartily at the strange coincidence. He asked me to go and see him at Washington as soon as I returned there, so that he might introduce me personally to the President of the United States.

That same evening had brought me the best means of action in my political campaign at Washington.

There remained but one door to open. It was that of the fanatical Senator Morgan, the irreconcilable adversary of Panama, the man who, for twenty years, had been exhausting himself in efforts for the triumph of Nicaragua.

I was bent on attempting his conversion.

Mr. Pavey, my faithful lawyer and friend, had given me, before my first trip to Washington, a letter to one of the most brilliant journalists of these days, Mr. James Creelman, then the Washington correspondent

of the *New York American*. It was the nationalist and popular organ, which had let loose the war against Spain, and was then using all its powers of argument for the triumph of Nicaragua.

Mr. Creelman was away during the first days of my visit to Washington, but he soon returned. He was the friend of Senator Morgan, and promised to arrange an interview for me with him, so that I now had the key of the Lion's cage! But on my first visit to Washington I had not yet all the weapons necessary for entering the cage safely. I waited before returning to Washington for my pamphlet to be printed. In the meantime I left for Philadelphia, where I gave a lecture on Wednesday, the 3rd of April, after issuing the necessary instructions for sending my pamphlet to 15,000 of the men in the United States best qualified to understand its value.

As soon as my pamphlet was published I betook my way to Washington to see President McKinley and Senators Hanna and Morgan.

Important Conversation with Senator Hanna

My interview with Senator Hanna was decisive. His clear, straightforward mind quickly grasped all the most striking arguments of which I had measured the effects in my public speeches. They struck deep home.

"You must know, Mr. Senator," I said, in conclusion, "that all that I have said to you is the pure expression of truth. I published all that in France nine years ago, in 1892. To-day, I have come to proclaim it loudly in America. I have against me the rooted opinion of a whole country, the immense interests of the Nicaragua Company, and the devotion of a whole nation to an idea which it believes to be a national idea. In thus attacking the legend, I have put my person and reputation as a guarantee of my assertions. If there has been an exaggeration anywhere I ask to have it pointed out to me. I have been here now, speaking, for two months. Nobody has ventured to raise an objection or to formulate a protest. None will be made, because my word is but the hitherto stifled voice of Truth. It is for you now, for the heads of the nation to speak your word. Will it be for an unpopular Truth or for a popular Error? You have to choose."

The old Senator gravely replied: "M. Bunau-Varilla, you have convinced me. My friends at Cleveland had told me what an echo your words had had in their minds. You have already provoked an intense movement in favour of Panama. But I must say I was still doubtful, though very much impressed, by the atmosphere you had created. I thought, formerly, that Panama was a demonstrated impossibility. The most qualified engineers asserted it. But I supposed Nicaragua to be a relatively easy work. The only information

SENATOR MARCUS ALONZO HANNA

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I ever saw about Panama was a kind of prospectus distributed some time ago by the lawyers of the Company, but I did not attach much importance to it. To-day, I grasp clearly the whole question. Naturally it will be necessary that what you say should be ratified by men like Morison, Burr, or Ernst. If, as you assert, they think as you do, I shall go over to your side. I am an old mining operator. If two mines are offered me, I prefer the one which I know to be good and which is said to be bad, to the one I know to be bad and which is said to be good. As a Senator of the United States I must, in the service of the nation, adhere to the same principles."

I left the eminent and practical statesman with the feeling that I had just reached the culminating point of my efforts in the United States. I had finally conquered a force of incomparable value which was to fix the destiny of the Panama Canal. As will be seen, I was not mistaken.

On Friday, April 7, I went with Mr. Dawes to call on President McKinley. I did not inflict a long lecture on him as I knew his every moment counted, and that the opinion of Senator Hanna would be his own. I confined myself to giving him the text of my lecture and its gist in a few words.

My Visit to Senator Morgan: insulted by a Fanatic

To accomplish my programme at Washington nothing remained but to see Senator Morgan.

I needed to surround myself with precautions and guarantees. The fanatical and almost demented state of mind of the old Senator, after twenty years' uninterrupted efforts for Nicaragua, prompted him to see conspirators everywhere. He might consider my interview as an attempt to bribe him.

On my first visit to his friend, Mr. Creelman, I expressed to him what I feared. He promised to take all necessary precautions.

At last, at eight o'clock one evening, I knocked at the door of the veteran of the Nicaragua campaign. My visit produced a deep impression on him. In spite of his apparent courtesy I saw he was trembling with passion.

I had hardly begun my explanations, when he cut me short to sing the praises of Nicaragua.

After half-an-hour of futile effort to get in a word, I was able to say: "But the volcanoes of Nicaragua——"

"Oh, never think," he retorted, "that volcanoes will ever impress the Senate. The volcano argument is dead; with it you will not win a single vote."

"Well, Mr. Senator," I replied, rising, "we shall see."

The eyes of the aged Morgan shone with antagonism. "Now," said he, "between ourselves you would not put one dollar of your own money in this absurd project—in this rotten project—of Panama."

If ever in my life I was near the point of slapping an American Senator's face, it was at this instant. My hand rose instinctively, when I controlled the mad impulse. Between myself and the old man a picture presented itself showing me the consequences of the trap into which the intentional insult was driving me. On the following day all the papers would ring with the tale of a violent assault committed by a "foreign adventurer, in the pay of Panama," upon the austere and venerable defender of the National Idea of Nicaragua. I lowered my half-raised hand, and extending it solemnly towards the Senator, I said: "You have just inflicted upon me, sir, a gratuitous and cruel insult. But I am under your roof, and it is impossible for me to show you my resentment without violating, as you do, the laws of hospitality."

I turned my back on him and went out.

A few steps in the cool air of the night quickly soothed my irritation. "To be avenged for this insult," thought I, "I have nothing to do but to beat Morgan in the Senate on this very question of volcanoes."

It was precisely what happened in the following year, 1902. I did not suspect then that my revenge would be still more complete, and that a sad event would give me, in the Senate Chamber, precedence over Senator Morgan. I did not think in April 1901, when coming forth stung by his insolence, from Senator Morgan's door, that three years later I should be sitting on the front Bench of the United States Senate, and that he would be sitting just behind me. It was for the funeral service of Senator Hanna. I was then Minister Plenipotentiary of the Republic of Panama. I had, as a member of the Diplomatic Corps, a place in the front rank in the funeral ceremony which was being held in the Senate Chamber. It was not one of the least extraordinary incidents of the struggle for the triumph of Panama.

Mr. James Creelman, a man of good breeding and a very distinguished writer, as well as the most courteous enemy that I have ever met, was very grieved by this incident, but he agreed with me that it was better to let the matter drop.

Mr. Creelman, also a fanatical partisan of Nicaragua, gave in his newspaper on Sunday, April 9, 1901, two days after my visit to the President, a flaming account of the assault of the fortress of Nicaragua in the very heart of Washington, by the "conspirators of the Canal." But he also added to this account a perfectly fair reproduction of the arguments contained in my pamphlets on the comparative value of the two canals.

It was an inestimable result to have the most irreconcilable enemy

help me to throw light on the scheme I was attacking, and so bring into prominence its many and manifestly incurable faults.

After this journey to Washington I had attained the final object of my first visit. I had demonstrated that the partisans of Nicaragua could find nothing to answer to the clear charges that I had publicly made.

The Isthmian Canal Commission and my Campaign

While I was engaged in this crusade, I had constantly to watch a danger point; the Isthmian Canal Commission. By taking the initiative of discussing the relative merits of the two routes I was invading their ground.

Some of the members of the Commission might have taken offence at seeing me thus condemn the project, which some months before they had declared easy of execution, and which they had commended. Their animosity might have affected those members of the Commission who, after their interviews with me and their corroborative subsequent studies, had been won over to the Panama side.

As soon as I was able I hastened to explain verbally to the members of the Commission whom I knew, Mr. Morison, Professor Burr, and Colonel Ernst, the disinterested and purely scientific motives actuating me. The friendly attentions which I received, demonstrated to me that these members, at least, did not regard my efforts with a jealous eye.

In spite of the rigorous reserve, self-imposed by all the members and which I never tried to violate, I understood that for the success of their private debates on the Commission they were glad to receive this effective outside help.

I had the proof of this when the text of my lectures was printed.

I naturally looked for objections on communicating the pamphlet to the members of the Commission. Would they bear on the purely technical problems or would they be limited to the question of earthquakes? This latter danger was the easiest for the mass of readers to understand, but its probability could not be expressed by any precise calculation.

Mr. Morison raised no objection to the technical impossibilities to which I had drawn attention. He confined himself to stating that he did not fear, as much as I, the consequences of seismic disturbances on the works. In thus restricting his objections to this sole point, he manifestly approved the rest. This was of extreme importance. On the one point he raised I wished to develop my ideas fully. I replied from Washington on March 25:

"*Washington (D.C.),*
"*Arlington Hotel,*
"*25 March,* 1901.

"MY DEAR MR. MORISON,

"I received here, Saturday last, the 23rd, your letter of the 21st instant.

"I have too much consideration for the weight of your opinion not to have been very much impressed by the views to which you give expression relative to seismic activity in Nicaragua.

"I wished to reflect on the subject, and to undertake another *examen de conscience* in order to detect whether, contrary to my formal intention, the heat of discussion had not led me to lean too much to one side.

"After two days' and two nights' meditation I have been unable to discover anything that can change my opinion on the subject, and I am bound, therefore, to try to explain to you on what considerations my belief is based.

"I am accustomed to regard an Isthmian Canal more from an economical and humanitarian standpoint than from any other point of view, and I am inclined to consider technical questions as subordinate to the higher ones, which concern the immense part the Canal is destined to play in the future history of the world.

"It is to my mind an absolutely intolerable thought that this Canal, which will be the artery of the entire commerce of a people quite as important in number as that of France or of England, and perhaps more important in activity, should be exposed to a danger that nobody can deny and nobody can calculate.

"When I see that France, Germany, Russia, and England spend yearly immense sums of money to insure themselves against the danger of war, a danger which nobody can deny and nobody can calculate, I am led to think that if the Nicaragua route be chosen, and even were it to possess all the advantages of the Panama route while retaining only the exposure to seismic destruction, it would not be too great a price for the empire of West America to pay (were such a thing possible) for absolute security, by ensuring it for a yearly sum equivalent to that which is amply sufficient to-day for the construction of the whole Panama Canal.

"For the first and last time in the history of the world, Providence is now entrusting to engineers a task which utterly transcends the limits of their profession. The birth and future life of a great nation is in their hands. Is it to be born with a heart-disease, that may kill it in infancy, in mature age, or perhaps never, but which will force it to live constantly under the terror of an immediate and sudden heart-failure without any possible guarantee against such demise ?

"This is my point of view, dear Mr. Morison. Excuse me if I have exposed it too pompously, but the subject warrants it.

"I hope I shall soon have the great pleasure of seeing you.

"Most cordially,
"P. BUNAU-VARILLA."

The great American engineer answered :

"*New York,*
"*March* 27, 1901.

"DEAR M. BUNAU-VARILLA,

"I have your letter of the 25th, and admire your method of stating the case.

"You wish to avoid the possibility of a tremendous disaster, no matter

how remote that possibility may appear, on the principle of the calculation of chances.

"My feeling has been that the remoteness should be taken into consideration, and that when reduced to a calculated chance it would appear very small in comparison with other considerations.

"I go to Washington to-day, but expect to be back in this city before the end of the week.

"Very truly yours,
"GEO. S. MORISON."

I then sent him my pamphlet in its final form, where, on a certain page, was a footnote treating of this question of the volcanic predisposition of Nicaragua. It was as follows:

"To those who think I am exaggerating this capital point I may say: Open any dictionary of geography, any encyclopædia, and read the article entitled 'Nicaragua.' I will also say: Look at the coat of arms of the Republic of Nicaragua; look at the Nicaraguan postage stamps. Youthful nations like to put on their coats of arms what best symbolises their moral domain or characterises their native soil. What have the Nicaraguans chosen to characterise their country on their coat of arms, on their postage stamps? Volcanoes."

This time Mr. Morison, who was a man of wit, as well as a great engineer, admitted his defeat. He wrote to me as follows on the 2nd of April:

"The note at the foot of page 31 is so admirably expressed that I should have been very sorry to have it suppressed. It reminded me at once of the article that appeared in *Le Matin* the Sunday after the Dreyfus verdict. What was the positive verdict given by the Court? *Peut-être.* For *Peut-être* may be read 'Volcanoes'!

"Very truly yours,
"GEO. S. MORISON."

Morison thus accepted the objections concerning volcanoes. His supple mind had understood that among all the questions raised by me, this one was the only one which was accessible to the general public, the only one which would be correctly appreciated by a body of hearers. It was indeed this consideration that finally won the victory for Panama before Congress at Washington. As will be seen later on, the Nicaraguan stamp, depicting a smoking volcano on the edge of a lake, played a decisive part in the ultimate victory.

This victory would have been an easy one if the New Company had not shut itself up in its enigmatic hermitage after the revolution I had effected in the public mind early in 1901. It could only be obtained in 1902 at the cost of supreme efforts, and thanks to the help of unexpected events, once the final report in favour of Nicaragua had been signed towards the end of 1901. This condemnation of Panama, by the Isthmian Canal Commission, was the legitimate fruit of the

inexplicable policy followed by the New Company during the intervening period.

Profound Modification of American Opinion after my Lectures

When I left New York on the 11th of April, 1901, I could consider with joy the consequences of this rapid campaign. Inside the Commission my friends were satisfied with the work accomplished. They drew therefrom fresh energy to make their conviction predominate, because there now existed in American opinion powerful echoes of that hitherto solitary conviction. I had left in all the great cities of the United States: New York, Boston, Chicago, Cincinnati, and Philadelphia groups of eminent men converted to Panama. I had, and it was the most precious of all my conquests, converted to the new faith the most important man in America—the President of the Republican Committee, the Great Elector of the party in power, Senator Hanna. From all sides letters of congratulation reached me signed by important men.

The force of opinion which I had thus created emboldened the hesitating minds, if there were any, in the Isthmian Canal Commission. They could think freely because the idea had now been started in the public mind, and because for the first time a pro-Panama party existed in the United States, numbering in its ranks several prominent public men.

The event that had had the widest echo during this rapid and decisive struggle had certainly been my lecture before the New York Chamber of Commerce. The unrivalled authority of that assembly, which counts among its members the most powerful men in the United States, had enhanced the authority of my thesis and had multiplied its echo a hundred-fold. On the eve of this lecture the *Evening Post*, foreseeing its consequences, recalled the fact that two years before, Admiral Walker, President of the Isthmian Canal Commission, had publicly declared Panama to be an impossibility, and the paper showed the contrast between this assertion and the progress of the contrary idea.

The startling impression produced by this lecture was strengthened by the influence of a leading article in the *Journal of Commerce*, the official organ of the Chamber of Commerce, a paper possessing an exceptionally high moral standing. This editorial was devoted to my arguments. It declared that never before had a comparison between the two routes been presented with such fullness of data. It added that the comparison seemed impartial.

The change of opinion which this lecture produced became manifest

a few days afterwards. About six days later, on the 13th, the Paris edition of the *New York Herald* printed in large type this heading :

"RESURRECTION OF THE PANAMA PROJECT."

On the 18th, five days later, came the sensational title :

"THE DEFENDERS OF NICARAGUA ARE ALARMED."
"THE PANAMA CANAL PROJECT ADVANCES RAPIDLY."

This is clear proof that by publicly denouncing the defects of Nicaragua, and by offering myself personally as a pledge of my assertions, I had mortally wounded the rival of Panama.

The New Panama Company, which had not made the slightest effort to save the enterprise, was evidently intending to take advantage of the situation which I had created in order to sell its property. The price had been, so to speak, settled by the Commission at sixty million dollars.

The Commission had indeed established in their preliminary report of November 30, 1900, that the cost of execution of the Nicaragua Canal would be fifty-eight million dollars higher than the cost of completion of the Panama Canal. The Commission was thus face to face with the change of feeling which, after my campaign, had rallied to Panama the opinion of men of learning and influence. In the Commission itself engineers possessing the highest reputation had manifestly adopted Panama. These reasons constrained the Commission to say that at an equal price they would prefer Panama. This fixed, accordingly, the purchase price at about sixty million dollars. It only remained, therefore, for the New Company finally to decide as to the destiny of the grand work that had fallen into its weak hands.

CHAPTER XIX

SUPREME APPEALS IN THE WHOLE FRENCH PRESS TO KEEP PANAMA FOR FRANCE

On my voyage back to France while I was meditating over all that had lately happened, I began to ask myself if I ought not to undertake the duties in which the New Company had failed. This Company had always acted as if it were stifled by the weight of its great task. It had never even tried to discover the wishes of the innumerable people interested. Was it not for me to fulfil this duty in the interest of France ? Ought I not to make, on my sole responsibility, a supreme appeal to Energy and Truth, before the New Company laid down its arms without having struck a single blow ? Whatever the result I should thus free my conscience of a very heavy load ! If the only way to save Panama was its adoption by America, I could devote myself later on to that solution, without having to reproach myself for not having attempted even the impossible in order to secure its completion by the French. Such was my resolution.

The Two Supreme Appeals of April 25 and May 10, 1901

I left New York on the 11th of April, and I reached France on the 18th. I immediately wrote an appeal to the nation. I sent it to the advertising firm Lagrange & Cerf, with instructions to publish it in all the French papers that would accept it. It appeared on the 25th of April. The appeal ended by a letter, wherein I declared that I myself would subscribe four hundred thousand dollars out of the hundred millions necessary for the completion of the Canal. I entreated all those who had faith in this work to follow my example within the limits of their means.

Fifteen days later I made another appeal under the same conditions, to explain the state of progress of the enterprise. I showed the extraordinary facility of completing the work provided it was resolved not to embarrass oneself with the heap of useless technical precautions, as had been so blindly done by all those who had signed official projects since the downfall of the old company. The publication of these two

appeals cost me $21,559, to which must be added another sum of $5,970 for a third appeal at the end of the year. Alas! this time it was to constrain the New Company to save Panama by a sale to the American Government, as they had not known how, or had not dared, to save it in appealing to the people of France. The Company had indeed then, by its incredible inertia, lost the opportunity with which my campaign provided them.

I addressed my two first appeals :

"to all those who, for the realisation of a great national idea, had exposed their lives or risked their savings; to all those who, trusting in the fecundity of French genius, refused to allow it to be stripped of the fruits of so many efforts and of so many sacrifices."

In the first appeal, of April 25, after exposing the situation from the point of view of the sale to America, I said :

"Before accomplishing this act it is necessary that those interested in it, namely, the share and bondholders, should be put into a position to judge whether they prefer the solution, entailing the disappearance of a strip of the national flag, to the virile solution, which consists in courageously resuming the task and in completing it for the credit of France and for the honour of her name.

"To decide between the counsel of the Hare and that of the Lion it is necessary that the country should know the real situation. As those upon whom this duty fell have not accomplished it, I have sworn to accomplish it myself, at my own expense, and for its sake to ascend that modest tribune which every citizen may hire for the day, the last page of the daily papers.

"To those who are ready to laugh at this strange mode of propaganda I will say that Truth must be contented with the most humble vehicle in which to make its journey; to those who look for selfish or even baser aims in all human actions, I will say that man gladly opens his purse on behalf of a work for which he has risked his life during four years, in a deadly climate, and which he has seen destroyed by the Goths and Vandals of Civilisation, when all the positions had been taken by storm, and victory won for French science after an heroic struggle against almost superhuman obstacles.

"It is necessary that the mist of calumnies and insults under which these wreckers have concealed their crime, should be pierced by the bright light of day. It is necessary that clear and penetrating rays of truth should be thrown on the great uncompleted undertaking, and that it should appear to France in its true gigantic proportions. It is necessary that the country should know that this page of her history, written with their own blood, by the victorious legions of science, is not one of those for which she has to blush. It is necessary that those who gave their hearts and their souls for France should no longer be confounded with the Thenardier robbing the dead left on the field of battle, sounding the rout after victory, and preaching mendacity and calumny to conceal their felony and paralyse avenging Truth.

"It is necessary that our generous race should no longer dwell without anguish on the fact that the chains with which Christopher Columbus was loaded could have been again riveted, four centuries later, on Ferdinand de Lesseps and on his stoical and admirable son, and that it

should know that in striking them down our country dealt a savage blow at hearts that have never been beaten save for her."

After explaining the reiterated guarantees covering the estimates of the works that remained to be completed, I added :

"No one has any longer the right to ignore the real situation of the enterprise. The sale would be, in my opinion, disastrous from a material point of view, at any price that may reasonably be offered. It would be a still greater moral disaster, because an inheritance of cowardice and moral decadence would thus be bequeathed to our sons. Let everyone of those, to whom the good name of France is dear, consider that this enterprise is national in the highest degree, in spite of its purely industrial aspect. Let this conception determine his decision. . . .

"To the small investors I say : Give the example, because it is in the depths of the masses of the nation that her heart beats. To those of big fortunes I say : Remember that the only justification of riches in a democracy is to be useful to all when the nation needs her resources. Do not fear slander. Enlist in the solidarity of courage, have the courage of solidarity for the public welfare . . . .

"To those who heed my sincere appeal, I say : Do as I do ! Measure your power of subscription, do not exaggerate, bind yourselves in accordance with your means and write two letters similar to the two following that I am despatching by this mail :

'MONSIEUR GERMAIN,
'*President of the Crédit Lyonnais,*
'*Paris.*

'If, as President of the greatest private financial institution of the country, you wish to be informed as to the amount of subscriptions which may be counted upon in case of the raising of capital amounting to 100 million dollars for the completion of Panama, I beg you to consider me a subscriber for 400,000 dollars.

'I beg to remain, etc.,
'P. BUNAU-VARILLA.'

'MONSIEUR LOUBET,
'*President of the Republic.*

'As a simple citizen I venture to appeal for the good-will of the Head of the State, and the vigilance of the Government in favour of every endeavour to reconstitute the enterprise of Panama.

'P. BUNAU-VARILLA.'

"But let those of the Panama bondholders who are lacking in fighting energy, and who shrink from adopting this solution, manifest their views, by writing to their legal representative, Monsieur Lemarquis, rue Louis-le-Grand, Paris, that they prefer the sale to any other arrangement.

"Let everyone do his duty, and from the relative volumes of the two currents thus generated will issue the manifestation of the general sentiment and some solution, which, whatever it may be, is preferable to the existing torpidity and paralysis.

"I have accomplished my duty,
"P. BUNAU-VARILLA."

After publishing this first appeal I was led to think that it was necessary to complete it by putting the public in touch, as it were, with the state of progress of the works. I thought it not enough to be satisfied with merely the assertions of the technical commissions, and that it would be well to present the elements of the question more objectively.

I decided to embody this difficult explanation in a fresh appeal which, on the 10th of May, 1901, was, like the first one, published in nearly all the newspapers in France, great and small.

With reference to the aim of this new publication, I said at the beginning :

" I will descend from the heights from which the general conception can be contemplated, in order to throw a dazzling light on the details of its main divisions.

" My first appeal was inspired by a burning desire to protect and safeguard the fruit of French savings engaged in the work of Panama; by the burning desire to wipe out from our contemporary history the page written by calumny and maintained by cowardice; by the burning desire to save our future history from the constant remorse which will result from the enduring prosperity of the work we shall have abandoned, and which, even if placed in the hands of our best friends, will be a living symbol of our incapacity and mental debility, and which will weigh like a leaden cloak crushing out the very vitality of the French family.

" To-day I wish to make the Panama scheme tangible, and to show that these superior considerations are not of a purely immaterial character, but that they are the soul of a solid and compact body, the substance of which is composed of real and solid elements which may be seen with the eyes and touched with the hand of man. . . ."

Then, after having successively examined, first, whether there was danger of competition; secondly, whether completion was a certainty; thirdly, what profits could be obtained from the creation of the Canal; and, after giving to these three questions the most convincing answers, I concluded thus :

" I have tried to throw light on the great problems of the work. I have shown the solid and powerful reasons formed by the three orders of arguments, on which my conviction is based, of the monstrous error which the French would commit in abandoning their work. I have now finished my task and I have done my duty. Let everybody in his turn do his, by expressing his feeling with complete liberty through one of the two ways I have indicated. Let the advice of the Lion or the advice of the Hare be listened to, and let a solution be arrived at therefrom. The one to which I am opposed, that whispered by the Hare, I still prefer infinitely to that lethargy the end of which is death : *That one of the two mothers, who at the tribunal of Solomon preferred abandoning her child to strange hands rather than see him perish, was the veritable mother !*

" Whatever may come from this last effort I shall have satisfied my conscience. Even if my voice remains without an echo, it will never be

possible to say that not a single citizen has risen up in France publicly to point the road that should be followed.

"At all events I shall have—before the sacrifice, before the miserable solution, which I signalised so far back as 1892—established for contemporary history the balance-sheet of this tragedy of mendacity and calumny. I shall have fixed the figure of the ransom that the country is paying to its victorious internal enemy; to the parricidal son who stabs the country's great men and sets fire to the structures their genius has erected for her glory and her welfare, to the traitor who during the battle sows panic in the rear of the army and prevents a rally by falsehood and slander, so that the true cause of the rout may not be exposed, and so that he may draw infamous profit from the ruin he has brought about.

"I have said my say,

"P. BUNAU-VARILLA."

THE WAY THESE APPEALS WERE RECEIVED

The *Libre Parole*, the organ of M. Drumont and M. Delahaye, the initiators of the campaign of destruction, refused to print these two appeals, when sent by the advertising firm. It was the same with the *Eclair*, which, however, altered its decision on the second appeal.

M. Drumont devoted to these appeals two articles—one on April 29 and the second on May 23, 1901. He began the first in a playful tone:

"It is a very pretty page, a page traced by an artistic hand, as Goncourt would have said, that M. Bunau-Varilla offered for our perusal last week on the final sheet of the newspapers."

He then proceeded, in an apparently indifferent tone, tinged with sarcastic philosophy, to resuscitate once more all the hideous scarecrows by which he and his friends had succeeded in confusing and demoralising public opinion. Referring to this grand and heroic enterprise, the triumph of which ought to have aroused the patriotism and quickened the heart-throbs of every Frenchman, he said in the same sceptical and mocking way:

I confine myself to making a bow before the phantom that M. Bunau-Varilla has thought fit to bring on to the stage from the wings.

Then he drew a pathetic picture of all the poor ruined people, as if disasters could be met by whimpering instead of by energy and work.

On the other hand, hundreds of letters reached me, animated by the pure and vivifying spirit of our generous race. They were noble letters, all of which I should like to reproduce. They verified what I

said in my appeal, that "in the depths of the masses of the nation beats her heart."

I must confine myself to giving only a few of them. I never knew their authors. They will pardon me for publishing their letters without obtaining their authorisation. I do so, because they have known how to condense in a few moving lines the ancestral faith in the greatness, fruitfulness, and rectitude of the French genius.

I have taken these letters indiscriminately. They come from men of various social ranks. The expression varies, but the sentiment is the same. It can be expressed thus: "I believe in the greatness of my country."

The first that I shall quote came from one of those valiant men, who, under her glorious uniform, carry afar in the service of progress the military force of France. The second is from a "group of victims," but they are victims who see defeat crowned solely with the halo of revenge. The third and fourth are from two Shepherds of Souls, one Catholic, one Protestant. Religious faith separates them; faith in the destiny of their country unites them. Finally, as the national genius radiates beyond the limits of our frontiers, foreigners came also to salute the hopes of an effort on the part of France.

"*Pekin,*
"*July* 1, 1901.

"SIR,

"Five thousand leagues away from France we try to follow all that interests the future of our dear country, and we have read with an immense and intense interest your two eloquent appeals to the patriotism and confidence of the whole French people. The success of this magnificent work is for us so much a question of honour, that it seems impossible that the entire nation should not answer this appeal. . . .

"With the expression of my admiration for the task you have undertaken, I beg to remain, sir, etc.

"On behalf of a group of officers belonging to the Marine Infantry,
"FROUSTEY,
"*Corps d'occupation en Chine.*"

"*Dijon,*
"*May* 13, 1901.

"SIR,

"Your two articles on Panama ought to be reproduced by all the newspapers, and posted in all the towns of France. They are written with the precision of a master hand and their clearness is complete. We applaud your devoted efforts; you are doing the work of a great Frenchman, and our hearts beat in unison with yours. You deserve from every point of view to be the President of this great truly national enterprise. We are for you, and with you. Accept, sir, our respectful greetings.

"A GROUP OF VICTIMS."
[Signatures follow.]

"*St. Cyr-sur-Morin,*
"*May* 13, 1901.

"DEAR SIR,

"I read by chance your two articles of April and May last. These articles are from a man with a valiant heart, from a patriot (without flattery), from a man competent in his handling of the question, confident in his science, his work, his power of demonstration; accomplishing his superior duty for humanity and justice which moves him, in spite of all, in spite of the lassitude, and general discouragement, to sound the rallying bugle-note. I have always been convinced, I do not quite know why, unless by a remnant of national pride, that this Canal would one day be completed by France.

"On the day following the disaster which had swallowed my several thousand francs, I subscribed for some shares in the New Company, in the hope of encouraging serious investigations, which would permit, at the proper time, an appeal to investors with more certainty of final success. I am therefore in favour, like you, of the completion of the Canal with French capital. I am not rich, but I would nevertheless still give something for that object, if I were sure that the 100,000,000 dollars would be obtained. The co-operation of the great capitalists is necessary. It will be astonishing if they do not understand what you have so clearly shown. Could you not gather together the principal editors and directors of newspapers and hold a conference with that object in view. It will also be necessary to bring the question before Parliament, and to have there, at least, the encouragement from the Government. The question is in the highest degree one of national interest.

"Very likely I shall not live to see its accomplishment, but I will not despair. Unfortunately, I am powerless. May this clarion call be heard from the rich and from the humble, and sufficiently understood; may God also give you, and preserve to you, health and energy with which to defend and to make a reality of such a grand undertaking.

"Your obedient servant,
"EMILE LAPARRA,
"*Curate.*"

"*Mer-Loir-et-Cher,*
"*May* 14, 1901.

"SIR,

"I was convinced before reading your articles. After having read them, one cannot but feel that the matter is a mathematical certainty. He is blind who does not see that. You expound the question of the Panama Canal with so simple and energetic a conviction, with so communicative a sorrow at the thought that our country has but one supreme, yet easy, effort to make in order to secure the fruit of her sacrifices and to recuperate her power by the afflux of new capital, that it is impossible you shouldn't succeed in dominating the situation, in spite of the calumnies of all kinds with which you will be inundated, until the day comes when your traducers, who will then wish they had been the first with you, come to crown you with the title of 'Second Great Frenchman.' A man does not write as you have done without being animated by the purest patriotic motives. I wish, if only for one brief instant, to be a multi-millionaire, in order to enjoy the pleasure of bringing you one morning the relatively small sum which you indicate, and to offering it unconditionally to my country. There are men now living who might enjoy such a happiness!

"I am far from possessing, in capital, the interest on the interest on the

interest on the interest of 100,000,000 dollars, but that does not prevent me from saying that you can number me among those who will subscribe to the extent of their capacity in the new issue if our legislators finally agree to do something good and useful for France. Please accept, sir, a warm hand-shake from—

" Your very devoted,
" GAL. LADEVERE,
" *Pastor.*"

" *Helsingfors,*
" *May* 25, 1901.

" SIR,

" In reading quite recently in *Le Matin* the lines you have written on the enterprise of Panama I have felt a deep emotion.

" I read some time ago the list, which *Le Matin* published, of the subscriptions made on behalf of the rescuers of the *Russie.* That was nothing but a simple act of gratitude, yet how many poor children, how many people of all ranks of society opened their purses! Now the question is higher, it is to sacrifice one's money on the altar of national glory.

" Your cause is far from desperate. Do not say you have made your last effort. *Dum spiramus speremus.*

" Please accept the assurance of my profound admiration at the same time for you, for your noble country, and for French genius.

" CHARLES WUK,
" *Student at the University of Helsingfors.*"

" *Gorice, near Trieste,*
" *April* 24.

" SIR,

" Having read this morning in the newspaper *Le Matin* your admirable and noble appeal to your compatriots in favour of the *completion of the Panama Canal,* and being *deeply convinced of the superiority of the Panama Canal over that of Nicaragua,* because I have visited both routes, in the course of several scientific voyages made in company with my friend Prof. Maurice Wagner of Munich, I offer you my warmest good wishes for the success of your appeal for the accomplishment of this work, which will be an immortal monument to the patriotism, to the genius, and to the perseverance of the French nation.

" Please to accept, etc.,
" DR. CHARLES SCHERZER,
" *Former Envoy Extraordinary and Minister Plenipotentiary of Austria-Hungary.*"

The Times of London gave an account of my attempt. It is interesting to quote this article, because it gives a picture of the situation, seen from the outside.

Here are some extracts from it :

" *The Panama Canal, Paris,*
" *April* 24.

" M. Philippe Bunau-Varilla, a graduate of the *École polytechnique,* and a civil engineer, has been for four years Managing Director of the Panama works. Among all those who have been the most bitterly attacked, he perhaps has had the largest share of obloquy. But never for

a moment has he varied in his language, nor in his confidence, that the completion of the Panama Canal would be not only possible, but comparatively easy. He has been the frankest and most ardent enemy of the Nicaragua Canal scheme. He started for America after numerous interviews with competent Americans and spent three months there, giving lectures in Cincinnati, Cleveland, Boston, Chicago, Philadelphia, Princeton, New York, and Washington, his object being to show that the Nicaragua Canal is utterly impracticable, among the numerous insuperable obstacles to its success being the fact that it would inevitably be destroyed as soon as constructed. He has returned from America convinced of the futility of the efforts to save this canal and persuaded absolutely that the United States have but one way to realise their scheme of an Isthmian Canal, and that is by the purchase of the Panama Canal as now existing from its present shareholders. It is in order to prevent this result and to arouse against it French opinion and the opinion of the world, that M. Bunau-Varilla has, to use his own expression, taken the fourth, or last, outside page of the largest French journals in order to develop his theories and state his convictions and hopes, for it is absolutely certain that he is ready to do all in his power to realise an idea which he has been cherishing now for twenty years.

"I cannot reproduce in full the document, the object of which is to *raise to life this inert form of the Panama Canal, which it was supposed was forever dead and buried.* I am utterly ignorant as to what may be the possible consequence in France of this audacious enterprise, and of course M. Varilla knows as well as I that outside France his appeal has no chance of being heeded. I hope it will be heeded here, for projects such as that of which he dreams are, as everyone will agree, spectacles worthy of encouragement. At any rate, I believe that I should be wanting in my duty if I did not draw general attention to the task which M. Bunau-Varilla has set himself, and if *ever this work be really revived through his energy, they will never forgive themselves who will have refused him the slight encouragement of informing the public and of interesting it in the stirring efforts which the young and courageous engineer is to undertake from to-morrow by this appeal.*

"I give some extracts : . . ."

This *phantom brought on from the wings,* as said M. Drumont; *this inert form of the Panama Canal, which was supposed to be forever dead and buried,* as said *The Times,* I have succeeded in calling back to life. It was won back in spite of the opposition of American opinion, in spite of the inertia of the New Company, in spite of the antagonism of Colombia.

In order to attain my aim I was obliged to modify the political distribution of Central America. But this resurrection was not the one I had dreamed. Why did it not take place in France and by France ?

No powerful hand in France was extended towards me. Notwithstanding my desperate appeals, no man in public life, no one in the press, granted to the expiring enterprise the charity of a friendly glance. Even *Le Matin* itself did not help me. Alas ! it was not then what it has since become under the guidance of my brother, the devoted organ of all those who can serve in any way the greatness

of France. Its sole inspirer at the time was M. Poidatz. He was deeply moved by my appeal. He hastened to call upon me, and offered to put his great organ at my diposal. Alas! it was but a transitory emotion, and the offer was not renewed.

Necessity of doing away with Anarchy in Public Authority

Among political men, one man alone understood, at the time, the interests of France. It was M. Caillaux, the Minister of Finance, in the Waldeck-Rousseau Cabinet. His enthusiasm quickly cooled at contact with his colleagues. None of these men could ignore, however, the immense interests both moral and material that were in jeopardy. They simply turned their gaze away from it. They suffered one and all from the strange horror inspired by fear of suspicion of corruption.

If ever there had been any doubt of it this striking example would of itself show how absolutely necessary is the reform of our system of government. A public interest of the greatest importance is in peril and no man in the Government has the courage to take its defence.

In 1892 Rouvier had refused to utter from the tribune two words of encouragement for Burdeau, to welcome the generous effort the latter was ready to make in order to save the great undertaking. Waldeck-Rousseau refused in 1900 to second the ardour of Caillaux. During eight long years the members of every Government in France passed by, their heads lowered from fear of the slings and arrows of Calumny. They thereby shirked the most essential of their duties. Not one of them rose to say: "If there be a culprit, let him be arrested and punished, but the Government will not allow calumny to make use of the supposed unworthiness of one man to ruin six hundred thousand families in France. The Government will not tolerate that the shame of defeat be inflicted on national genius, when in fact a brilliant victory has been won."

In thus exposing this monstrous silence I do not wish to incriminate any man. If the Ministers in question have not expressed their opinion ten times over it is not because clear minds and patriotic hearts were lacking in the Government. What was constantly lacking to all these Governments, what is wanting in them to-day, what will still be lacking to-morrow, is the faculty of acting as a vitally governing body.

That they will not be able to do until the Constitution ceases to be violated by the tacit agreement of both the executive and the legislative powers. We shall have merely a comedy of parliamentary régime, and a Government devoid of force, of energy, and of resistance, so long as the House can, with impunity, overthrow the Cabinet without upsetting itself.

In a Republic the people are the Sovereign, and not their mandatories.

The people have two kinds of delegates—the Government to carry out the laws, and the two Houses wherein to make them. When there is a conflict, the People are the only Supreme Judges. The Representatives have arrogated to themselves the right to change Governments according to their fancy, without asking the people to express their will through new elections. This anarchical encroachment has made the Government of France the prize of a race between intriguers and the victims of a single sitting's emotions.

If a Government knew that the defection of its majority would be castigated by an obligatory dissolution, it would soon overcome the intrigues of the lobbies. It could challenge Calumny without effort, because that pest is slain by the rays of Truth, provided time be given for their action to become effective.

What effort of energy and civic courage can be expected from a cabinet whose existence is at the mercy of an explosion of hypocritical virtue ?

For this reason we must go back to the origin of the desertion of duty, which caused this great disaster without charging it on any man or group of men. It will be found exclusively in the incapacity of any French Government to live, to act, and to speak freely and clearly. Nobody can act if he has not time before him. A Government has time if those who are interested in overthrowing it are constrained to submit simultaneously to the same fate.

In Dissolution lies the whole mystery of the solidarity of English Parliamentary Government. The elimination of Dissolution in France caused at the same time the suppression of all government worthy of that name. It has encouraged among the powerful Electors the blackmailing of the Representatives, and the blackmailing of the Minister by the Representatives. It has allowed Calumny to exercise a directing power. It has levied on France a cruel ransom in an infinitude of affairs. This history of Panama is its clearest and most striking example.

CHAPTER XX

THE STRUGGLE FOR PANAMA ON THE TECHNICAL FIELD

When no echo of any really substantial effort answered to the sound of my two appeals, I understood that the idea of Panama was indeed dead in France.

Adoption by America becomes henceforth my Object

Only one way was open to me by which to save the idea, to the revival of which was linked a part of the honour of France. This way was its adoption by America. From that moment this was my unique aim. I resolved to make every conceivable attempt and I did attempt everything, to attain this end, even a revolution in Central America.

At that moment, at the end of 1901, no extraordinary effort seemed necessary to attain such an object.

It depended exclusively on the New Panama Company achieving her goal—the only one henceforward possible—namely, the sale to America. The powerful revulsion which I had caused in enlightened opinion in the great Republic, was redounding to the interest of the only ambition the New Company ever had.

Incomprehensible Attitude of the New Company

Then the strangest and the most unlikely of spectacles was witnessed. This Company, which had Truth in her closed hand but had never opened it for France, this Company which had never done anything but offer its property to America, coyly looked askance when the goal was in reach. Instead of answering the Commission and fixing a price for its property, it suddenly became dumb. For seven years it had done nothing in France to arouse a flagging courage and goodwill. It adopted the same tactics of inertia, when the only aim that it ever had, an inferior aim to be sure, but still an aim after all, came within reach. As early as April 10, 1900, Admiral Walker had written

to the President of the New Company on behalf of the American Commission asking the Company clearly :

(1) if it was willing to sell,
(2) if it was able to sell,
(3) for how much it was willing to sell.

Until April 1901 the Company had grounds for eluding these three questions. The Colombian Law of 1878, by which the concession was granted, forbade the sale to a foreign Government.

Negotiations to that effect were therefore prohibited. But on April 29, 1901, M. Martinez Silva, Minister of Colombia at Washington, who had been sent specially to solve the question, waived the prohibition, by taking, before the Company, the initiative of negotiations for this sale.

The barrier, behind which the inertia of the Company was sheltered, had been removed. Admiral Walker on May 8, 1901, mentioned it in writing and demanded an answer to the questions which had remained in suspense for more than a year.

At this precise moment a clear and loyal action would have settled the question once for all. It is almost certain that if a demand of from sixty to seventy million dollars had been made it would have been accepted. The Governments of Washington and Bogota would then have remained face to face to settle their own difficulties.

Instead of that, there began an ambiguous and prosy correspondence which seemed designed expressly to exasperate the Commission. This intention seemed to have met with success in August. The Commission believed, and with some reason, that it was being positively trifled with. It accordingly decided to reject Panama and to recommend Nicaragua. One of its members, Mr. Geo. Morison held out. He declared that he would make in favour of Panama a report signed by himself only, a report which, as a matter of fact, he wrote and gave to the Commission.

The determined attitude of this great engineer saved the enterprise of Panama from disaster. It was decided to wait a little longer.

At last, but not until October 17, 1901, the answer of the Company arrived. It was just as ambiguous as its former attitude had been.

Instead of the three clear and precise words that were demanded, it wrote about six thousand, and even those six thousand words did not express anything final. It simply constituted a basis for negotiations.

The answer so long waited for, so long deferred, was not an answer at all. It is scarcely possible to find any rational reason justifying such an attitude.

The concession to the Company expired three years later. The extension for six years, which had been obtained from a dictatorial Government in Bogota was a dubious one. The Colombian Senate was to show later on, in 1903, that it held it practically as non-existent.

On the other hand, during the month before the arrival of this letter, the Government of the United States had been modified. President McKinley had been assassinated at Buffalo and succeeded by Mr. Roosevelt. The dominating power of Senator Hanna over American politics had in part disappeared. The new President was the most vivid expression of popular sentiment, and was in direct touch with it. This sentiment had always been obstinately turned towards the idea of Nicaragua, and the new President was its decided partisan and never concealed the fact. In a solemn speech pronounced at Mobile, Alabama, on October 23, 1905, he clearly stated that he had never rallied to Panama save by order of Congress.

On the other hand, the movement I had created had naturally slowed down from want of action, and the old love for the national solution by way of Nicaragua had gradually regained its hold.

Such were the conditions under which the New Company again eluded the frank, clear, and precise answer which could alone save Panama.

Being extremely anxious on account of the tide of bad news, which was rising on every side, I left for America on November 13, 1901, and I found the situation as bad as it could possibly be.

The Isthmian Canal Commission was ominously silent.

Most happily, on November 21 and 22, the veil was accidentally lifted.

A stenographer sold to the *New York Journal* the conclusions of the Report of the Commission recommending Nicaragua, and the text of the Minority Report of Mr. Morison recommending Panama.

These papers were published as concurrent and simultaneous documents. Mr. Morison's report of several months before was presented as corresponding to the actual situation.

The Commission denied that there was any Minority Report, a denial true at the actual moment.

One evening of the following year in his country house at Peterborough (New Hampshire), Mr. Morison told me how this report had been written in the middle of 1901, and how it had then prevented the final adoption of Nicaragua.

At the end of the year, in view of the ambiguous answer of the New Company, he had been forced to abandon his technical preferences. He had rallied to Nicaragua because it was then the only solution henceforth offered to America. He had, however, demanded in

exchange for his adhesion that the advantages of the Panama solution should be clearly mentioned in the text of the report.

The publication of these documents was triumphantly presented by the *New York Journal* as sounding the funeral knell of Panama.

The arrest of the stenographer guilty of the indiscretion authenticated the documents published; not a doubt remained. The final report of the Commission adopted Nicaragua, exactly as had the provisional report, presented the year before, on November 30, 1900.

Under such conditions what remained for me to do? To go and see Senator Hanna, to show him the egregious error which was being committed, to revive in his mind the impression I had before created, then to tell him that I was going to return to Paris in the hope of reversing the situation.

My good luck led me to meet Colonel Myron T. Herrick at Washington, where he was spending a few days as the guest of the Senator.

I explained the situation to him, and he grasped its full gravity. He promised me to prepare Senator Hanna for my visit and to arrange for a long interview. That interview took place under the excellent auspices of the warm recommendations of Herrick in favour of Panama.

I found the conviction of the Senator very much shaken by the decision of the Commission. I explained to him how considerations due to the fatal and inexplicable policy of the Company had dominated the minds of these eminent engineers.

I depicted the grave consequences which were to result from a choice dictated by moral considerations, where science alone had the right to speak.

When I left the old Senator he again had a clear view of the solution, which public interest demanded.

At the same time, I had to reassure opinion in France, and to show that everything was not, as might be thought, lost. I had also to give an indication as to the course to be followed, and to explain the reason of the terrible disappointment.

Immediately after the publication in the *New York Journal*, I wired to *Le Matin* a long cablegram, which was published under my name in the issue of November 29, 1901. Among other things I said in it: "In spite of adverse public opinion, and the unpleasant consequences resulting from the conclusions of the Commission's report favourable to Nicaragua, the situation may still be saved if the Canal Company abandons all ambiguous diplomacy and dangerous controversy immediately after the official publication of the report."

This cablegram had the effect I desired. The President of the New Company was forced to resign some days later; the fatal policy he had followed being condemned with him.

I RETURN TO PARIS AFTER HAVING DEALT WITH THE MOST URGENT MATTERS

I left New York on December 12, 1901, to return to France in order to concentrate all my energies on the realisation of the action which I thought necessary. I employed all my time until the day of my departure in fanning in the minds of my friends the conviction which my lectures at the beginning of the year had kindled there. I still cherished hope, provided the Company should be willing to abandon its state of lethargy, but I was probably the only person who was still optimistic. The Nicaragua party was celebrating its victory everywhere. General opinion approved unanimously, finding in the report the justification of the fifty years of American fidelity to the idea of Nicaragua.

I arrived in Paris to attend a general meeting of the New Company which asked from the shareholders full power to contract a sale, and announced at the same time that a new negotiator was to be sent out.

I went first to see the new president, Mr. Bô, and then the president of the Crédit Lyonnais, M. Germain. I said to them: "What is needed is not to negotiate: it is to fix a price. Yesterday you might still have done it; to-day it is too late. Yesterday you might have negotiated and got sixty, perhaps seventy, million dollars; to-day the battle is lost.

"You can make an offensive attack again only if you accept the figure of forty million dollars at which the Commission has valued that part of the Company's property which she can use in her project. This estimate is wretchedly low; but, as you have let the opportunity slip by, you must grab at any solution still possible.

"You have still fourteen days before you. If on January 7, at the opening of Congress, the price is not settled you will have assumed an unparalleled responsibility."

Two days after I had pronounced these words the telegraph confirmed the impression which I had brought away with me from my interview with Hanna. My visit was bearing the desired fruit. On December 25, 1901, under the title "The Panama Route Regains Ground," *Le Matin* published the following cablegram:

"Senator Hanna announces, on behalf of the Republican members of the Canal Committee (Senatorial), that they are ready to re-examine the question of adopting the route viâ Panama, should the owners of the French works be disposed to sell their enterprise for forty million dollars."

This telegram showed that after the long conversation I had with him, the faith of Senator Hanna had again become just as firm as when I convinced him for the first time, after my lecturing campaign.

Several days passed and the Company seemed again to have fallen into its former lethargy. It had satisfied itself with sending to Washington the Secretary-General, M. Lampre, and no decision had been taken.

Appeal to the Public to force the Company to Action

I was determined I would not see Panama remain forever a victim of this perpetual inertia.

I decided to take the initiative myself, if the Company had not acted by December 31. As she could everlastingly continue her hesitating game, again discourage the friends of Panama in America, and leave Nicaragua to carry off the victory, I struck an unexpected blow.

It was one of those historical instants, those crucial moments, when controversies, too long prolonged, are decided.

In order to force action on the Company, I resolved to assume the responsibility which it was itself shirking. I undertook the distasteful task of announcing publicly that it was necessary, before January 7, to offer the Canal for forty million dollars.

The imperious necessity of such an act at this instant found an original expression in an article of the *Sun* on December 28, 1901.

On the day that I was preparing the publication in all the papers of Paris of the statement which was to oblige the Company to act immediately, the *Sun* editorial was saying in New York :

"PANAMA

"If the representatives of the French shareholders really desire to obtain from Congress consideration of a reasonable proposition to sell out to this Government, and if they have an attractive proposition to offer, the swiftest ship that crosses the Atlantic is none too fast for their service at this time.

"Perhaps the last opportunity of Panama has already gone. Certain it is that with every week and day it is going.

. . . . . .

"The only move that can now gain a hearing for the Panama route must be nothing short of Napoleonic in conception and execution."

When, several weeks later, this editorial was brought to my notice I found there a fresh manifestation of the instantaneous correlation between the thought which springs up in the most distant brains in face of the same event.

In my public declaration I recalled the words that concluded my second and supreme appeal to technical Verity and French Manliness, published the preceding 10th of May :

"Let either the advice of the Lion, or the advice of the Hare be listened to, but some solution must be found. The advice to which I am opposed—that which the Hare whispers, I still prefer infinitely to that lethargy, at the end of which is death. *That one of the two mothers, who at the Tribunal of Solomon preferred abandoning her child to strange hands, rather than seeing him perish, was the veritable mother.*"

A little further on I added :

"This inferior solution, the sale to a friendly nation, to America, is in itself, after all, so enormously superior to the total dissolution, to the melancholy and complete ruin, to the second and final failure, that no being provided with even the meanest common sense can deny that all efforts must be strained towards its attainment, rather than let rise above the horizon the phantom of complete decadence and infinite shame. Without doubt hypocrisy can there, as anywhere else, find its ground of action. There will be Pecksniffs of patriotism who will have made no effort, nor done anything to obtain the salvage of the work of Panama by France, but who will oppose a transaction which is to-day the only means by which may be still preserved this same national honour when rationally understood.

. . . . . .

"The fireman who abandons to the flames the last quarter of the building, when he can still save this fraction of it fails in his duty.

"All the sophistries and all the hypocrisies will not change the simple and powerful indication of the evidence."

I concluded by saying :

"Either we must let the American Government fix its own price, or we must ourselves propose the sale for forty million dollars.

"Outside of these two solutions there is nothing but the extreme danger of seeing the current of popular sentiment gain ground, and carry the choice of the Nicaragua solution by storm. That would be a material loss of enormous proportions. *It would be a moral loss much greater still, because the legend of infamy and mendacity, which has been created around the name of Panama and which would be dissipated as its execution progresses, even if carried out by a foreign nation,* this legend would be absurdly confirmed, by a preference given to the virgin project of Nicaragua over the route two-thirds finished of Panama.

"To avoid this terrible abyss it is necessary to act, and to act immediately; the duty of the Board is strictly defined by facts. If they have not accomplished it between to-day and the 7th of January next their responsibility will be also definitely defined before the people and before the law.

"PHILIPPE BUNAU-VARILLA."

The sudden manœuvre which the *Sun* was advocating in New York, and which, as it said, could alone reanimate the last spark of chance for Panama, was thus being accomplished exactly at the same moment in Paris.

It will be seen by the narration of events how right the *Sun* was in thinking all probability in favour of Panama almost extinguished. That was in fact absolutely the case. It needed the extraordinary

and unlikely event of the eruption of Mont Pelée, and the destruction of St. Pierre in Martinique, to incline the scales of Fate, which the inertia of the New Company during the year 1901 had fixed in favour of Nicaragua.

At any rate the manœuvre made in Paris prevented the victory of Nicaragua being proclaimed at the reopening of Congress on January 7.

The Company being confronted by its crushing responsibility in case it should refuse to follow the way indicated in my publication, was obliged to cable on January 4, 1902, an offer of sale for forty million dollars, before the arrival of its negotiator.

Adoption of the Nicaragua Hepburn Bill by the House

As soon as the session began, on January 7, 1902, the House of Representatives began the discussion of the question. In spite of the offer made, the Hepburn Bill, providing for the construction of the Canal in Nicaragua, was immediately adopted on January 9, 1902, by a unanimous vote of the House *minus* two votes. A timid effort to leave to the President the final decision, on account of the Company's offer was rejected by 170 votes against 120.

This explosion of the general sentiment was significant.

Stupidity grafted on Wickedness had conceived the theory which we know already : " The sham enthusiasm of all the American people for the solution of Nicaragua was simulated in view of purchasing Panama at a low price." This ridiculous theory will be somewhat difficult to sustain in view of the almost unanimous vote of the House against Panama, when the offer of sale had been once made and become final.

The childish supposition of a comedy played by a great nation, by the metallurgists of Pennsylvania, by the cotton-planters of Texas, by the ranchmen of Wyoming, by all its press, by all its engineers, by all its technical commissions, by all its political men, is indeed an unsurpassed absurdity. But this question of Panama seems to have had the strange privilege of enslaving the public mind and submitting it to the domination of all the inventions of Stupidity and Wickedness. This one cannot be overlooked any more than the others.

If I predicted in my book, published in 1892, that Panama would be taken by America in case we should abandon it, it was because of what I held to be the superiority, from a scientific point of view, of the French solution. I was, therefore, convinced that Truth would finally triumph over the error, which since 1850 had dominated all minds in America. But this victory of Truth over Error could not be bought save by a violent struggle. The policy of the New Company had given Error

her best weapons. She would have undoubtedly won, if on December 31, 1901, I had not absolutely forced the Company to change her mischievous policy. Some days later the Senate, together with the House, would have voted enthusiastically for the triumph of the national solution.

The offer of January 4, 1902, had been powerless to diminish the impulse of the House in favour of Nicaragua; but in the Senate a man with a master mind, Senator Hanna, blocked the movement. He asked President Roosevelt to consult the Isthmian Canal Commission. He requested the Senate to wait for complementary information. On January 14, 1902, Senator Morgan wished to pass the Hepburn Law in the Senate in a rush of enthusiasm, as it had been passed in the House. He was confronted by Senator Hanna. The latter announced that the President had summoned the Commission. Morgan could not believe his ears, and doubted the assertion of Hanna. Hanna replied: "Go and ask the President if you do not believe it."

The Senate, which had, it may be remembered, voted for Nicaragua with enthusiasm in January 1899, stopped and waited.

Probabilities of the Victory of Nicaragua according to the "Herald"

The *New York Herald*, like all American papers, supported Nicaragua. It was to remain energetically attached to this cause until November 1903, when the Panama revolution took place. On January 14, 1902, the *Herald* published an editorial depicting the situation very correctly. I give the substance of it:

"As much as it can be judged the national sentiment in America is unanimous for Nicaragua. Such unanimity is so much more significant, when you think that the Isthmian Canal Commission has frankly shown all the disadvantages of the popular route. All the objections shown have been admitted by the competent scientific authorities, but their weight is null if compared with the instinctive conviction, so profoundly rooted in the American nation, that the Nicaragua Canal project is a purely national affair, conceived by Americans, sustained by Americans, and if later on constructed, operated by Americans according to American ideas, and for American needs. In one word, it is a national enterprise."

The *New York Herald* thus strikingly expressed why Nicaragua seemed bound to win in spite of its recognised inferiority. The paper added that if the plebiscite were taken, the decision would be emphatically in favour of Nicaragua:

"Sentiment must be reckoned with in national affairs as in private ones. The American people prefer paying thirty per cent. more for the construction of their ships than would be necessary, if built in foreign countries. They

prefer to pay that surplus of thirty per cent. for having a fleet which is American from beginning to end. For the same reason, it is almost certain that if the people were consulted on the Canal question they would simply drown under their votes the foreign canal, and extol the National Canal in spite of its superior cost. This is demonstrated by the nearly unanimous vote of the House in favour of Nicaragua.

"The question is this: Will the Senate be more permeable to foreign influence?"

The Isthmian Canal Commission recommends Panama

The picture of the situation was rigorously exact, and it may be inferred from this what would have taken place, what might have happened, if the offer of the Company had not been made before January 7, as I had publicly demanded. The offer changed everything. First, as we have seen, the Senate stopped action. Secondly, January 18, 1902, the Isthmian Canal Commission annulled its preceding vote. In view of the offer made by the Company on January 4, they recommended the adoption of Panama.

It was a great victory, but it was not final, as it left on the public mind the impression that the Nicaragua Canal was preferable, if the Panama Canal was to be bought for a hundred million dollars;[1] but that, on the contrary, Panama became preferable if its price were lowered to forty million.

As the *Herald* said, the difference in cost of sixty million paltry dollars could not counterbalance the weight of the national sentiment in favour of Nicaragua.

This shows how grave had been the fault committed by the Company in not offering the Canal in May 1901 for seventy million dollars.

At that moment the report of the Isthmian Canal Commission would have been carried by the current of opinion I had created. It would have been clearly, powerfully, and finally favourable to Panama.

The effect of the reversal of the Commission's report was to engrave still more deeply on the spirit of Hanna the conviction of the importance and necessity of the final victory of Panama. His admirable and practical mind had verified by a personal inquiry all that I had said. The Commission crowned the result of his inquiry by its conclusions.

Shortly after this victory another sign of success was manifested. The lawyer, by the name of Cromwell, whose services the Company had used for five years, but with whom it had decided to sever its connection in the preceding month of June, tried to be reappointed. He saw that the boat, thought to be lost, had been refloated. He wished to re-embark. Hanna asked me to support his plea as he wanted to

[1] The sum of $109,141,500 had been admitted by the Commission to have been asked by the New Company. It had declared this price to be unacceptable, and it was one of the motives which had actuated its adoption of the Nicaragua route.

oblige a supporter of Cromwell, for many years Hanna's banker. I had later on to explain this incident in a paper entitled *Statement on Behalf of Historical Truth*,[1] which I sent to the Committee of the House on Foreign Affairs in April 1912, in order to redress certain erroneous assertions brought before the said Committee and printed as a Committee document under the title : *The Story of Panama.*

This was but a slight incident of the great struggle which was going on in January 1902.

At the end of January, Senator Spooner proposed a Bill corresponding to the decision of the Isthmian Canal Commission. It charged the President with the duty of constructing the Panama Canal, provided that a clear title of property could be obtained from the Company and a satisfactory treaty signed with the Sovereign Lord of the Isthmus, Colombia. If any one of these conditions could not be fulfilled the President was to carry out the Nicaragua Canal.

This meant a preference for Panama. Of the two conditions inserted in the Spooner Bill the first one could not raise any difficulty. The second condition, on the contrary, raised the thorny Colombian question, which I was later on to settle by determining the secession of Panama.

[1] As has been already stated, this document has been printed by the Committee on Foreign Affairs in the Hearings on the Rainey resolution: February 1913.

CHAPTER XXI

FIRST SERIES OF NEGOTIATIONS WITH COLOMBIA

THE question of the Colombian conditions in respect to a treaty was raised immediately after the Spooner Bill was presented at the end of January 1901.

Before advancing further in his campaign, Senator Hanna thought it necessary that Colombia should approximately determine her general conditions. The precaution was justified, as events were to prove.

COLOMBIA'S SHILLY-SHALLYING POLICY

On this essential point Colombia was to display that state of intellectual anarchy which divides this unfortunate but admirable country into irreconcilable factions. On one side is the party of the "Historicals," whose ambition it is to restore to the country the régime of the Spain of the sixteenth century. They dream of a return to the social conditions of Philip the Second and the Inquisition. They march towards the future, keeping their eyes fanatically fixed on the past. On the other side are the men of open mind who hope to find in Liberty the glorious activities which other nations of the American Continent have found and made their own.

Between the partisans of the Past, the "Historicals," and the partisans of the Future, the struggle of ideas frequently and spontaneously assumes a violent form, that of Revolution.

These antagonistic tendencies were to administer inverse shocks to the Colombian diplomacy on the Canal question.

When the situation seemed desperate for Panama the partisans of the Past remained quiet, adopting the doctrine of Philip the Second, who thought we should not disturb the work of God. The partisans of the Future were then able to intervene, and make an effort towards the realisation of the Canal. As soon as the situation took a turn for the better, the "Historicals" interfered and obtained a preponderant influence. In the name of what they called the interests of the country, which, by the way, required just the contrary action, they raised unacceptable pretensions.

This game of see-saw ended in the Secession of the Isthmus of Panama. I engineered it because it was the only way to preserve the entire scheme from dissolution. I may say, however, that I never ceased for a single instant, from the beginning of 1902, to warn the Colombian Government of what would be the fatal end of their errors. The governing power was then in the hands of a man whom I never knew, President Marroquin. I am persuaded that he understood the importance of my advice, as he textually followed it on various successive occasions. I pay homage, therefore, to the rectitude of his intentions, but the head of the Republic of Colombia was practically powerless at the supreme moment of crisis. Force alone, therefore, could overcome an obstruction which was as unreasonable as it was contrary to the combined interests of all the nations of the world. Circumstances allowed me to employ force. My duty was to take advantage of opportunity. I did so.

I now give the circumstances under which began my intercourse with the distant President Marroquin.

When the preliminary report of the Isthmian Canal Commission appeared, at the end of November 1900, Panama seemed to be condemned. This report, as will be recalled, recommended Nicaragua. It evidently could not but please the "Historicals" of Paris, MM. Drumont, Delahaye, and their associates. The Bogota reactionaries saw in it the suppression of the current of activity and liberal ideas which the construction of the Canal would create in Colombia; the Paris "Historicals" saw in it some few cartloads more of earth stamped down over the corpse of the great dead enterprise.

The imminence of the danger had led me to undertake in America, in 1901, the campaign of speeches which was to attract to the Panama Canal its great defender, Hanna. A similar pressure had been felt in Bogota. M. Martinez Silva was sent as Minister Plenipotentiary to Washington. He was filled with the idea that the realisation of the Canal was an essential necessity for his country.

He put an end to the inertia of the New Company, and took the initiative of authorising them to treat with the United States. It has been seen how the Company failed to take advantage of the favourable dispositions of public opinion in America as well as of those of the representative of Colombia. This attitude of the Company was perfectly satisfactory to the "Historicals." They did not make a move in Bogota.

Suddenly the conditions of the problem were altogether changed. The appeal I had made in all the newspapers of Paris, on the 31st of December, 1901, forced the Company to immediate action. On the 18th of January following, the Isthmian Canal Commission had finally adopted the Panama solution.

The " Historicals " were shocked. The maintenance of M. Martinez Silva meant the realisation of the work which Philip the Second had condemned in the sixteenth century. It was the resurrection of the idea which MM. Drumont and Delahaye had declared unrealisable in Paris at the end of the nineteenth century, with the feeble-minded complicity of those who should have been its natural protectors.

It was then that was first invented the " Bluff " theory. For sixteen years it had been proclaimed that Panama was unrealisable and chimerical; it had been declared that the fact of undertaking the construction of the Canal was an abominable swindler's trick. But as soon as America rallied to the cause of Truth, the very same party shouted both in Paris and in Bogota that Nicaragua was nothing but a " Bluff." They added that the Americans were too clever not to have understood long before the superior merits of Panama.

My First Relations with President Marroquin

I went to see M. Martinez Silva at Washington, to beg him to make acceptable conditions with the American Government. " You preach," he said, " to a man who is already converted," and he showed me admirable letters filled with just views and clear ideas which he had sent to his Government. " But," he added, " I should be happy if the authority of your name were added to corroborate my opinion," and he asked me to write to him so that he might transmit my letter to the President of Colombia.

Some days later M. Martinez Silva announced to me that he was going to be replaced by M. Concha, a representative of the extreme Nationalists, said to be very unfriendly to the Canal, and who was coming with the evident intention, if not of actually obstructing, at least of exacting almost unacceptable conditions.

" If only your letter had arrived in Bogota," said M. Silva, " it would have had a salutary influence."

" Well," answered I, " I am going to cable."

" Would you really do that ? " said he, much moved and pressing my hand. " But that would be a very great expense."

" It does not matter," I replied, " for the cause of Panama I never measured either time, danger, or money."

I immediately forwarded to the President of Colombia the cablegram which I will shortly give, and which was followed later on by several others. Thus began this singular one-sided correspondence. Never did the President send me an answer, but he always took the measure which I advised. Alas ! there was only one exception to this rule. My last telegram of June 13, 1902, which demanded the ratification of the Hay-Herran Treaty by the Congress of Colombia,

had no effect. Marroquin was no longer master! The consequence was the modification of the map of Central America five months, all but ten days, afterwards.

Here is the text of the telegram sent on the 23rd of February, 1902, at 12.20 P.M. As M. Martinez Silva had feared, it was an expensive one, costing me $304·38.

"MARROQUIN, *President Republic.*

"Request pressingly President of Republic to hear cry of danger uttered by uncompromising defender enterprise Panama and faithful friend Colombia.

"*First,* Nicaragua advocates reckon absolutely on delay in conclusion of negotiation between Colombia and the United States, and on exaggerated financial demands from Colombia to kill Panama.

"*Second,* Indispensable to baffle their plans by immediate signature of a very liberal protocol ensuring political and sanitary security for the operation of the Canal, and fixing a very moderate annuity for Colombia.

"*Third,* Great danger results from fact that Isthmian Commission after recommending Nicaragua on account of too high demands of Canal Company, recommended Panama, after great reduction of first demand, but has subordinated final decision to obtaining very liberal conditions from Colombia.

"*Fourth, The veritable historical interest of Colombia lies in the construction of the Canal, and in the sanitary redemption of the Isthmus of Panama.* Those two great facts will produce an indefinite prosperity for your Republic, infinitely more than the immediate acquisition of an annuity more or less elevated.

"*Fifth,* I do not hesitate to express opinion that the figure recently published of an annual indemnity of seven to eight hundred thousand dollars is extremely dangerous, and that an heroic, but wise and far-seeing, moderation requires a reduction of one-half, which would ensure the triumph of Panama.

"*Sixth,* If blind or perfidious advice induces Colombian Government to ensure the victory of Nicaragua by delaying protocol or formulating exaggerated demands, I assert that the Panama conception will be killed. I assert also that no European Government, from fear of American hostility, and no private company, from fear of Nicaragua competition, will ever resume the works if abandoned, and this enterprise will remain an historical disaster for moral and material interests both Colombian and French.

"*Seventh,* I respectfully entreat the President to listen to this pressing appeal from a man both impartial and competent. The danger is extreme. There is not one minute to lose, nor one mistake to commit to fix Destiny and arrest Fortune.

"PHILIPPE BUNAU-VARILLA.

"*Hotel Waldorf Astoria,*
"*New York.*"[1]

On the following day, the 24th of February, 1902, M. José Vicente Concha disembarked at New York to succeed M. Martinez Silva.

I was not to see the latter again. He died in a mysterious manner on his way back to Bogota. A rumour got abroad, without, however, material confirmation, that he had fallen a victim to the hatred generated by his devotion to the cause of the Canal.

First Manifestation of the Colombian Opposition

The expression of the sentiments adverse to the construction of the Canal, which had caused the recall of Martinez Silva, can be found in the following cablegram, which he received on the 11th of February, 1902, from M. Arjona, Governor *pro tempore* of the Isthmus.

"Our patriotism takes offence at the stipulation. . . . In renouncing sovereignty, and in allowing the establishment of a Foreign Power on our own territory, Colombia is ignominiously humiliating her most precious jewel, Panama. *It would be preferable that the negotiations should fail altogether rather than that we should pay so dearly for them.* The inhabitants of the Isthmus protest with indignation against such negotiations.—Arjona."

Such were the hostile ideas of which M. José Vicente Concha was the exponent. He had just left the Department of War at Bogota, in the midst of the insurrection, to come to Washington.

Most happily M. Concha remained in New York a fortnight, before taking up his post at Washington, under the pretext of illness caused by the long and difficult trip from Bogota to New York. It was most probably to exchange telegrams with the Government at Bogota. I preferred to wait some days before seeing him, in the hope that my cablegram would bring to him more conciliatory instructions.

I fix the Indemnity which was to be adopted One Year Later

As soon as the first relations were established in the middle of March 1902, between the Department of State and the new Minister, I wrote again, in Spanish, the letter that I had addressed in French to his predecessor Martinez Silva. M. Enrique Cortez, who has since become Minister of Colombia in Washington, but who, in those days, was, so to speak, in exile there, awaiting the end of the Revolution in Colombia before returning home, undertook to hand the letter to M. Concha. M. Cortez was a man of great rectitude of mind. He shared all my ideas as to the necessity of a quick and equitable arrangement.

Some days later, I called on M. Concha. He listened to me attentively, but kept silent with regard to the prospect of the negotiations.

Immediately after my visit, I wrote to him, on the 22nd of March, so as to leave him a permanent trace of my recommendation as well as of the dangers I had signalised.

The theory invented by the perfidious enemies of the Canal in Paris and in Bogota, according to which the love of the Americans for Nicaragua was a mere feint, was certain to exert an influence on

his mind. I therefore took upon myself the task of demonstrating to him its absurdity.

In the meantime, for M. Concha's own enlightenment, I undertook to establish the estimates of what was to be the limit of the indemnity to be demanded by Colombia. I fixed the figure at 9,800,000 dollars *plus* the annuity paid by the railroad to the Colombian Government, that is to say, 250,000 dollars. This annuity had been paid in advance for ten years and at three per cent. the actual value of this annuity for the rest of the concession was approximately 4,300,000 dollars.

The indemnity which I thus fixed and communicated to M. Concha on March 22, 1902, was precisely the sum which when my advice was repeated ten months later was accepted by both parties: 10,000,000 dollars *plus* the annuity of the railroad. This indemnity was stipulated in the Hay-Herran Treaty on January 22, 1903. After the rejection of this Treaty by Colombia, it was finally inserted in the Hay-Bunau-Varilla Treaty of November 18, 1903.

The lawyer Cromwell, who, it may be remembered, had been re-admitted into the service of the Company, naturally had access to M. Concha on that account.

Much upset, he called to see me on the morning of March 26.

"A crisis has been reached," said he; "Concha refuses to yield. His last word is 7,000,000 dollars in cash, *plus* an annuity of 600,000 dollars."

If capitalised at three per cent. that was tantamount to a demand of 27,000,000 dollars instead of the maximum of 14,000,000 which I had fixed. It meant the rupture of negotiations, as Nicaragua was contented with about one-fourth of this indemnity.

In view of the extreme peril of the situation, this difference virtually gave the advantage to the enemy.

I CABLE TO THE ISTHMUS TO REVOLT AGAINST OPPRESSION

I then resolved to strike a blow in the proper place, and to make my first appeal for a violent reaction on the part of the Isthmians themselves. This decision was the embryo from which was to be developed a series of extraordinary and decisive events. I wrote to the owner of the leading newspaper of Panama the following cablegram, March 26, 1902 (11 A.M.):

"DIRECTEUR, *Star and Herald*,
"*Panama.*

"*First*, Panama Canal is exposed to terrible danger. Every day's delay in the signature of a very generous protocol is a step towards death.

"*Second*, Any financial demand of Colombian Government, higher than twelve and a half million dollars for all the rights on the Railroad and Canal or its equivalent in annuity at three per cent. for totality of part of it is equivalent to a death warrant and signifies triumph of Nicaragua.

"*Third,* I consider sums stated above as extreme and already dangerous limits. Urgently advise to demand less.

"*Fourth,* Immediate action is indispensable to avoid irreparable consequences.

"*Fifth,* Communicate my cablegram to all those who desire that Panama should not be killed.

"BUNAU-VARILLA.

"*Hotel New Willard,*
"*Washington.*"

I shall always remember the astounded expression of the lawyer Cromwell when I showed him the cablegram which I had just sent.

"You do not understand?" I asked. "No," he answered, "what is the use?" "Well, my dear Mr. Cromwell," I replied, "you do not understand because you do not understand the question. I do not say this as a reproach. The political conditions of Colombia are as foreign to you as are the technical questions of the Canal. They are not your domain. I am going to explain to you the whole situation. The Isthmus of Panama is attached to Colombia only by a thread. It is the vulnerable point of the Colombian body. Touch it and you will see extraordinary convulsions. This cablegram will not be published. The Governor will forbid its being printed, but he will immediately wire it on to Bogota, and this will entail the despatch of fresh instructions to M. Concha. Moreover, I am going to communicate it myself to M. Concha and it will perhaps suffice to open his eyes."

The lawyer Cromwell was not a man who needed to hear the same thing twice in order to understand it. He learned his lesson well. A year later that lesson certainly dictated his conduct when the people of Panama asked him if he could obtain for them American support for a revolution.

But it is not sufficient to know of a theory to generate facts from it, any more than it is sufficient to own a violin to extract melodies from it. The lawyer Cromwell, after encouraging the revolutionists, got so mixed up in the intrigues that he threw up the whole business and left for the other side of the Atlantic. Fortunately I intervened a few days after he had abandoned the conspirators to their fate, and the new Republic was constituted.[1]

But we must not anticipate events. Let us follow their regular succession.

I COMMUNICATE MY TELEGRAM TO THE COLOMBIAN MINISTER, M. CONCHA

I waited till the following day, so that the Governor of Panama could cable back my telegram to M. Concha if he thought fit. I then

[1] The documents relating to these facts can be found in the Hearings published by the Committee on Foreign Affairs on the Rainey resolution; February 1913.

sent to the Minister a copy of my cablegram with the following letter, so as to put him face to face with the crushing responsibility which he had to assume.

"*New Willard Hotel,*
"*Washington (D.C.),*
"*March* 27, 1902.

"HIS EXCELLENCY M. CONCHA,
"*Minister of Colombia in Washington.*

"MR. MINISTER,

"The situation is growing more serious daily. It has become almost desperate.

"It would be an insult to your clearsightedness to believe that you are to-day in the hope of a success for Panama, if the financial demands of Colombia rise above 12,500,000 dollars American gold, all compensations included.

"It would be to insult the intellectual qualities of your high statesmanship to believe that you are not considering all the terrible consequences which will result for Colombia both at home and abroad when it becomes known that her Government has consented, for a paltry sum of some millions, to the death of an enterprise which was bound to load her with benefits and honours.

"The acceptance of a moderate sum will expose her Government to criticism, which being unjust, will be without serious consequence.

"*The assassination of the work of Panama from fear of such criticisms will cause an explosion of deep and justifiable passion, which will entail for Colombia the most painful and acute consequences.*

"The people, quite independently of party politics, will, in fact, hold that they have been materially betrayed in their most legitimate hopes.

"You have attained, at too young an age, Mr. Minister, to the highest positions in the State not to be endowed by Nature with exceptional faculties.

"You have consequently weighed all the elements in this terrible situation, and I have too high an esteem for your personality to think that you have not come to a conclusion on the merits of the question.

"If, therefore, you do not accept the solution which reason indicates, which duty to your country imposes, and which, with civic courage can be made a reality, it is because the Bogota Government, badly enlightened, badly inspired, paralyses you.

"In the hope that a clear statement of the danger involved would lead those most interested to make a salutary appeal to Bogota, I sent yesterday, to the Isthmus, the cablegram of which I consider it my duty to remit to you the enclosed copy.

"Please to accept, etc.,
"P. BUNAU-VARILLA."

M. Concha answered :

"*Legation of Colombia,*
"*March* 27, 1902.

"DEAR SIR,

"I have just received your note of to-day's date, and I can only say to you in reply, that for Colombia the question of which you speak is not only a money question, but also and principally an affair touching high interests, which cannot be discussed on a mere commercial basis or superficially.

"I therefore deplore that you should have sent the cablegram of which you remit me a copy. It deals with the matter under its less important aspect, and may lead to an error as regards the true state of things.

"Please, etc.,
"CONCHA."

I immediately retorted as follows:

"*New Willard,*
"*Washington (D.C.),*
"*March* 27, 1902.

"To HIS EXCELLENCY, M. CONCHA,
"*Minister of Colombia, Washington.*

"MR. MINISTER,

"I have the honour to receive your letter in answer to mine of this morning.

"Your elevated conception of the Canal question is absolutely just. The real question, the essential point, is not that of money.

"It is in theory truly monstrous, both on the part of the United States as well as on that of Colombia, that a question of such capital importance should be dependent on some millions of dollars more or less.

"The real interest which each of the Republics ought to attach to the idea of the construction of the Canal at Panama, is of such paramount importance that it seems foolish to think that the Panama route may be condemned owing to disagreement bearing on a question of such inferior order.

"It is, nevertheless, I repeat, just because of this inferior point, that the conception of Panama is going to perish.

"It is a point of very secondary order, a rock in the ocean; but if the ship strikes against it a catastrophe is certain.

"It is a point of very secondary order, a tie in a railroad track; but let two or three of them be missing in succession and a catastrophe is certain.

"It is a point of very secondary order, a loose stone on a road. But if it be placed so that the foot of the traveller slips and the man falls into the abyss, a catastrophe is certain.

"We are to-day placed, after mortal years of efforts and struggles, in the heartrending situation of beholding everything lost, owing to an element of a merely secondary order.

"It seems impossible to believe such a thing, but you know that such is the case, Mr. Minister. You know that the unanimity of popular sentiment is against Panama, and that only the devotion of a few prominent men, who are risking their popularity for the public welfare, can make it victorious.

"They are beaten in advance, and consequently will take no trouble about Panama if Colombia may be accused, with any likelihood, of exercising a pressure, which the passion of our opponents will qualify as blackmail. It is, therefore, on that point of secondary order, that the existence of the entire work depends. All the other conditions, infinitely more important for Colombia, are not exposed, as this one is, to the base appreciation of the masses, and will be settled, I am convinced, in the highest spirit of justice and cordiality by the American Government as well as in accordance with the just aspirations of Colombian patriotism.

"In this affair, I am seeking only to avenge the genius of France, odiously misappreciated even by France herself.

"The triumph of Nicaragua, owing to a paltry difference of some millions between the demands of the Company, and the views of the

Isthmian Commission, was prevented through my action in Paris, not more than three months ago. I am conscious of having rendered a service to my country in taking the heavy responsibility of recommending the sale for forty million dollars.

"To-day for a paltry question of some millions, Colombia is nigh throwing away the most marvellous privilege that Nature gave to any people.

"Everything must be attempted to avoid such a terrible disaster.

"Please to accept, etc.,

"P. BUNAU-VARILLA."

EFFECT OF MY COMMUNICATION ON M. CONCHA

In sending these letters I was certain they would weigh heavily on the resolution of M. Concha. I was not mistaken, as on March 31, 1902, M. Concha at last presented acceptable conditions. He agreed as to the cash payment of 7,000,000 dollars, and left it to later arbitration to fix an adequate annuity every hundred years. No annuity was to be due for the first fourteen years.

CHAPTER XXII

THE CAMPAIGN AGAINST NICARAGUA IN THE AMERICAN SENATE

THE Gordian Knot was cut. The road was henceforth free. Senator Hanna could begin the fight in the Senate.

A DOCUMENT WHICH STRIKES AND DOES NOT SPEAK

It was to be a fight for life. The partisans of Nicaragua allowed the time to slip away. They hoped, with some reason, that the effect of the vote of the Isthmian Canal Commission in favour of Panama would gradually vanish.

Moreover they reckoned on the lassitude at the ends of sessions, and on the state of mind that contact with the electors in the near future exercises on the members of Congress, to carry a vote in conformity with the unanimous wishes of American opinion.

I was all too aware of the danger which this temporising strategy entailed. I resolved to take advantage of it in order to forge new weapons for the battle.

The only advantage which Panama could claim was its technical superiority. To understand that it was necessary to dig into heavy and abstract reports.

Such they were even for engineers, and, consequently, all the more so for those who were ignorant of technical matters, as was the case with all the Senators.

The majority of the Senatorial Commission on Interoceanic Canals stood for Nicaragua. Senator Hanna and three other Senators—Millard, Pritchard, and Kittredge—stood firm for Panama. They were to make a minority report: a fresh mass of paper to be added to the immense quantity already printed. Nobody would read it.

It was necessary to make something new, something obvious, something everybody could understand at a glance.

Actuated by this idea, I conceived a document which was to produce a great impression.

It consisted in representing by "bars and rounds," as Pascal said, the thirteen principal characteristics of the two projects.

I was able to enclose in the thirteen sketches the outcome of this enormous discussion prolonged during fifty years between Panama and Nicaragua.

That verified Napoleon's formula that "a small sketch says more than a long report."

The first page showed by two broad lines the relative importance of the two masses to be removed in each of the projects. Which is the smaller mass? Panama. This was the question asked and answered by the first sketch.

The second page asked the same question, and gave the same answer for the quantity of steel required.

The third concerned the number of locks, and so on.

I showed this simple, yet mutely eloquent, demonstration to Senator Hanna. He was enchanted with it. His practical and just mind seized the capital importance of this luminous and striking document, comprehensible to all.

"Here, Mr. Senator, is all that will be remembered of your speech. You can make with this series of diagrams whatever use you like. It belongs to you."

The artillery was in position, there was nothing more to be done but to await the hour of battle.

I had, as always, great faith in Senator Hanna's personal influence. But, as the party of Nicaragua had expected, the impression produced in January by the unanimous recommendation of Panama by the technical commission, was slowly dwindling away. National opinion had recovered its equilibrium and returned to its former gods. The advocates of Nicaragua constantly repeated: "We have been told it was the better solution if Panama was to cost a hundred million dollars, and the worse if Panama was to cost forty millions. Are we, for a paltry sixty millions, going to abandon the better solution, the national idea, and condemn American genius to failure?"

The Victory of Panama is so improbable that I am reported insane

Towards the month of April all the information transmitted by the French Embassy to the Department of Foreign Affairs on the Canal question was so hopeless that the rumour was current in Paris that I had gone crazy.

My brother, much disquieted, crossed the ocean to comfort me.

I tranquillised him. As nothing remained to be done in Washington I proposed to go with him to Cuba. It was at the moment when the first statistics were being obtained as to the results of the campaign against yellow fever.

We went to see Major Gorgas, who had admirably directed the battle.

"Ah," said he, "I hope soon to go and apply the same method in Nicaragua for the construction of the Canal."

"Major," I replied, "I am sorry to say such a thing to you, but you will never apply your method in Nicaragua."

"Why do you say that?" he inquired, stupefied.

"For the very simple reason that Nicaragua will never see the construction of the Canal," I answered. And as the Major's eyes grew larger and larger, I added: "But reassure yourself, you will rid the Isthmus of Panama of its plagues, as you have done at Havana."

The astonishment of the eminent doctor was scarcely diminished: so improbable seemed to him the idea that the Nicaraguan Canal would not be constructed.

Later on he must have remembered this prediction which seemed so unlikely then, but which, however, became a fact in spite of the odds.

The Explosion of Mont Pelée and the Destruction of Saint-Pierre

No sooner had we returned to New York than the most unlikely event took place. On May 6, the eruption of Mont Pelée and the destruction of Saint-Pierre sent a shudder throughout the world.

This extraordinary occurrence took place at the very moment when the great debate, Nicaragua *versus* Panama, was about to open.

The question of volcanic dangers thus suddenly pushed into the limelight by the catastrophe of Martinique, was precisely the one on which my argument had insisted most strongly ever since 1892. It was the question which had won so many to my cause when I gave my lectures in 1901.

What an unexpected turn of the wheel of fortune!

The strategy of procrastination adopted by the partisans of Nicaragua was turning against them indeed.

If not the strongest of my arguments against Nicaragua, at least the most easily comprehensible of them was thus made a hundred times more striking owing to the prodigious emotion aroused by the catastrophe.

I waited a few days, ready to turn against Nicaragua the terror which the disaster of Mont Pelée had produced.

The desired opportunity was furnished by the opinion of an eminent scientist concerning the Danish Antilles.

The question of their purchase by the United States for five million dollars was then being discussed.

When the catastrophe of Mont Pelée took place it was thought that Martinique would disappear in the ocean as well as other Islands of the Antilles. It was questioned whether the purchase of the Danish Antilles was advisable under these conditions.

Mr. Hill, the eminent geologist, answered in the *Evening Post* that it was necessary to make a distinction between the Lesser Antilles, which are eminently volcanic, and the Greater Antilles, to which group the Danish Antilles belong. In the latter, he said, there had been no manifestation of the subterranean fire *since man had appeared on earth.*

It was the very distinction I had made between Nicaragua and Panama, and what I had said and written in 1901, as to the unlikelihood of volcanic activity on the Isthmus of Panama and the likelihood of it in Nicaragua.

Letter to the Senators drawing a Parallel between Nicaragua and Martinique

I seized the opportunity and sent to every Senator a personal letter with a cutting of the *Evening Post* and the pamphlet giving the text of my lectures in 1901.

I wrote also to President Roosevelt, who was known for his sympathy for Nicaragua.

I print the Series of Diagrams that are the Harbingers of Victory

Towards the end of May the question arose as to how to employ my famous series of diagrams.

I desired that Senator Hanna should use them in his speech as being an impressive statistical document prepared by his orders.

The straightforwardness of the old Senator made him prefer that I should present my diagrams under my own signature.

He regarded the document as too important to assume even the indirect paternity for it.

He feared it would be thought he had done so in order to obtain personal credit for the idea.

For me the question of signature was a negligible one. What I wanted to drive home was my arguments against Nicaragua through the best channel.

I naturally respected the scrupulousness of Senator Hanna, and ordered the printing in New York of this singular book. Each page of it sang the praise of Panama without uttering a word.

It was entitled: "*Comparative Characteristics of Panama and*

Nicaragua, by Philippe Bunau-Varilla, former Chief Engineer of the Panama Canal Company."

As I did not wish to appear to be quoting any but exactly measurable data I eliminated a map I had first inserted, and which showed the position of the various volcanoes of Central America. Nicaragua was full of them, but there were none in Panama.

I suppressed this map also, because the volcanic argument was now sufficiently to the fore by reason of the Mont Pelée disaster, and because I did not wish to appear as resorting to sensationalism in this series of mute but eloquent testimonies.

COMPARATIVE CHARACTERISTICS OF CONSTRUCTION

I

EXCAVATION

NICARAGUA,
227,711,605 cubic yards.

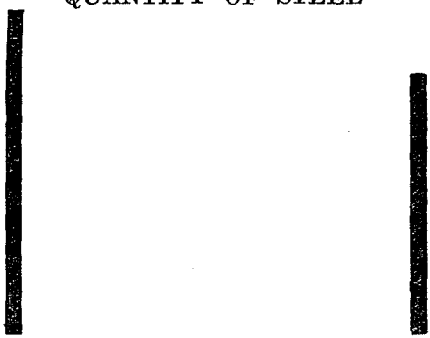
PANAMA,[1]
94,863,703 cubic yards.

NOTE.—The amount of excavation in each case approximately measures the quantity of labour required on both routes. The diagram indicates how much greater would be the labour problem on the Nicaragua route.

COMPARATIVE CHARACTERISTICS OF CONSTRUCTION

II

QUANTITY OF STEEL



NICARAGUA
40,500 tons.

PANAMA,
32,624 tons.

[1] *Report of the Isthmian Canal Commission*, p. 99.

COMPARATIVE CHARACTERISTICS OF CONSTRUCTION

III

DEPTH OF GREAT CUTS

NICARAGUA,[1]
297 ft. (Tamborcito Cut).

PANAMA,
103 ft. (Culebra Cut).

NOTE.—The risk involved in the operation of opening a deep cut through unknown ground imperfectly determined by soundings is obvious. The deeper the cut the greater the risk.

COMPARATIVE CHARACTERISTICS OF OPERATION

IV

COST OF MAINTENANCE AND OPERATION

NICARAGUA,[2]
$3,300,000.

PANAMA,[2]
$2,000,000.

NOTE.—The saving on the annual cost of maintenance is $1,300,000 in favour of Panama. As two per cent. is the usual interest on U. S. bonds, this annual saving represents a capital of $65,000,000.

As the cost of construction is about five millions less for Panama than for Nicaragua, the Panama route is obviously $70,000,000 cheaper than the Nicaragua, if the capitalised value of the cost of operation is taken into account.

[1] *Report of the Isthmian Canal Commission*, p. 127. [2] *Ibid.*, p. 256.

COMPARATIVE CHARACTERISTICS OF OPERATION

V

NUMBER OF LOCKS

NICARAGUA,[1]
8 locks.

PANAMA,[2]
2 double locks;
1 single lock.

NOTE.—This diagram does not do entire justice to Panama, as the difficulty of going through two independent locks is greater than of going through one double lock, that is to say, through two immediately adjoining and consecutive locks.

COMPARATIVE CHARACTERISTICS OF OPERATION

VI

LENGTHS OF CANAL NAVIGATION AFTER DEDUCTION OF DISTANCES OF FREE DEEP-WATER NAVIGATION IN LAKES

NICARAGUA,[3]
141·88 miles.

PANAMA,[4]
42·09 miles.

NOTE.—The total length of the Nicaragua Canal is 183·66 miles[3] and the total length of the Panama Canal is 49·09 miles.[4]

It is only fair to deduct from those lengths the parts of the routes where ships will float in free deep water as if they were at sea. They can sail for 41·78 miles[3] under such conditions on Lake Nicaragua and for 7 miles[4] on Lake Bohio (Panama), leaving 141·88 miles of canal navigation on the Nicaragua route as against 41·09 miles on the Panama route.

[1] *Report of the Isthmian Canal Commission*, p. 134.
[2] *Ibid.*, pp. 92, 94.
[3] *Ibid.*, pp. 132, 165.
[4] *Ibid.*, pp. 92, 99.

COMPARATIVE CHARACTERISTICS OF OPERATION

VII

CANAL NAVIGATION IN THE SHALLOW PARTS OF LAKE NICARAGUA AND LAKE BOHIO (PANAMA).

NICARAGUA,[1] 28·73 miles. [redacted]

PANAMA,[2] 5·68 miles. [redacted]

NOTE.—It is known from the Isthmian Canal Commission's report that out of the 70·51 miles of sailing line across Lake Nicaragua, 28·73 miles require the digging of a channel below the bottom of the lake. The corresponding figure being 5·68 miles in Lake Bohio (Panama). The navigation over those 28·73 miles will be very dangerous, ships having to keep in a narrow channel while floating in a real sea exposed to its terrible storms, to its violent waves and to its cross currents.

They will be perfectly sheltered along the 5·68 miles of Lake Bohio (Panama) on account of the narrowness of the valley where the lake is formed.

COMPARATIVE CHARACTERISTICS OF OPERATION

VIII

LENGTH OF NAVIGATION AROUND CURVES

NICARAGUA,[3] 49·29 miles. [redacted]

PANAMA,[4] 22·85 miles. [redacted]

NOTE.—The navigation in a canal in the curved parts of the line is very difficult, because ships in a canal are partly deprived of their steering faculties. It is therefore very important that the length of the curved parts be as small as possible and that the curves be as flat as possible, in other words have a very large radius.

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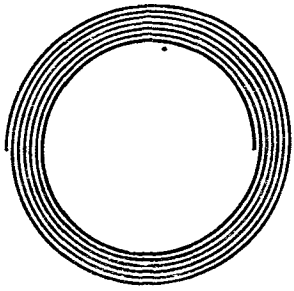
[1] *Report of the Isthmian Canal Commission*, p. 132.
[2] *Ibid.*, p. 92.
[3] *Ibid.*, p. 135.
[4] *Ibid.*, p. 99.

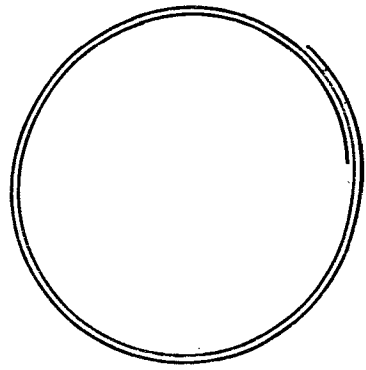
COMPARATIVE CHARACTERISTICS OF OPERATION

IX

CURVATURE AND AVERAGE RADIUS



NICARAGUA,[1]
Curvature, 2339° 50′.
Average Radius, 6400 ft.



PANAMA,[2]
Curvature, 771° 39′.
Average Radius, 9000 ft.

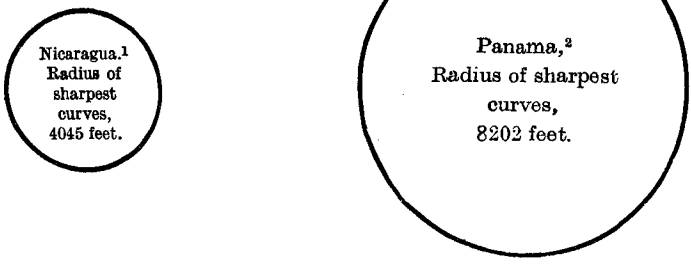
NOTE.—A ship travelling over either route would do as much turning as if she were following the above respective spirals. The enormous amount of curvature of the Nicaragua route is complicated by the abnormal and dangerous sharpness of the curves. In the above diagrams the average radius of each spiral is the average radius of all curves on each route, say 6400 ft. for Nicaragua and 9000 ft. for Panama.

[1] *Report of the Isthmian Canal Commission*, p. 135. [2] *Ibid.*, p. 99.

COMPARATIVE CHARACTERISTICS OF OPERATION

X

SHARPEST CURVES OUTSIDE OF LAKES AND HARBOURS



NOTE.—The parts of the way where navigation is most dangerous are those where the sharpest curves are met, because, if ships do not follow mathematically the curved route, they strike the banks and run the risk of sinking where the canal is cut through hard rock. The danger increases with the sharpness of curves, or in other words, where the radii of curves are small, as ships steer with great difficulty and uncertainty in a canal. The danger arising from sharp curves does not exist in harbours and lakes, because ships may follow a slightly different way without hurting themselves against obstacles.

Outside of the canal proper, where the minimum radius is 8·202 ft. there are four others on the Panama route of inferior radius in Colon Harbour and in the Bohio Lake. These four curves do not afford any danger for the above-stated reason.

[1] *Report of the Isthmian Canal Commission*, p. 135. [2] *Ibid.*, p. 99.

COMPARATIVE CHARACTERISTICS OF OPERATION

XI

ACTUAL TIME OF SAILING, WITHOUT TAKING INTO ACCOUNT THE DELAYS FOR WINDS, CURRENTS, AND DARKNESS[1]

NICARAGUA, 33 hrs.

PANAMA, 12 hrs.

AVERAGE NUMBER OF HOURS SPENT BETWEEN TERMINI OF TWO CANALS, TAKING INTO ACCOUNT ONLY THE DELAYS THROUGH DARKNESS

NICARAGUA, 64 hrs. 30 min.

PANAMA, 21 hrs.

NOTE.—The opinion of the most competent engineers (George Morison: statement before the sub-committee of the Senate, p. 36) is that the night transit, which is practicable at Suez with the rainless and calm atmosphere of that isthmus, the large curves and floodless waters of the canal, will not be possible for large ships, on the Nicaragua line, with the rainy and windy climate of this isthmus, the sharp curves and the flood currents of the canal. It must, therefore, be admitted that navigation will be stopped between 6 P.M. and 6 A.M. Though the same objections do not apply to the Panama route, we shall admit that the same rule would be enforced on this line also, in order to calculate the average time really necessary in both cases to cross the isthmus.

The arrival of ships at the entrance of the canal must be considered as equally distributed through the 24 hours of the day.

It follows that ships arriving at one of the termini of the Nicaragua Canal, between 6 A.M. and 9 A.M. (say one-eighth of the total arriving in 24 hours), will have to spend 33 hours of actual navigation, plus two nights or 24 hours of delay for darkness. They will spend 57 hours in crossing the canal. Ships arriving between 9 A.M. and 6 P.M. (say three-eighths of the total arriving in 24 hours) will spend 33 hours of navigation, plus three nights or 36 hours of delay for darkness; they will spend 69 hours in crossing the canal. Ships arriving between 6 P.M. and 6 A.M. (say of four-eighths of the total arriving in 24 hours) will stay 57 hours, plus the time between their arrival and the next morning, which will average 6 hours. They will spend 63 hours in crossing the canal. The average time spent by all ships arriving in 24 hours will be : $\frac{1 \times 57 + 3 \times 69 + 4 \times 63}{8} = 64$ hours 30 minutes, on the Nicaragua line.

A similar calculation shows that the average time spent on the Panama route will be 24 hours for ships arriving between 6 A.M. and 6. P.M. and an average of 18 hours for those arriving between 6 P.M. and 6 A.M. The average time spent by all ships arriving in 24 hours will be : $\frac{4 \times 24 + 4 \times 18}{8}$ = 21 hours on the Panama line.

[1] *Report of the Isthmian Canal Commission*, Jan. 18, 1902, p. 7.

One can say that ships will, as an average, spend 43 hours 30 minutes more on the Nicaragua than on the Panama line.

The total distance from the termini of the Panama route to New York and San Francisco respectively, is 498 nautical miles [1] greater than the total distance from the termini of the Nicaragua to the same ports.

As a steamer, having a speed of 11·5 miles per hour, covers 498 miles in 43 hours 30 minutes, it follows that in spite of the longer geometrical distance, Panama is the shorter route in time for all steamers having a speed of 11·5 knots or over.

Between the Gulf ports and San Francisco the increase of geometrical distance to the termini of Panama, compared to those of Nicaragua, is 700 miles instead of 498 in the previous case. As a steamer having a speed of 16·1 miles per hour, covers 700 miles in 43 hours 30 minutes, it follows that in spite of the longer geometrical distance, Panama is the shorter route for all steamers having a speed of 16·1 knots or over.

It follows that for the traffic from North Pacific to New Orleans, the Panama route is longer in time only for slow steamers; it is equal to Nicaragua for medium-speed steamers, and shorter for fast steamers.

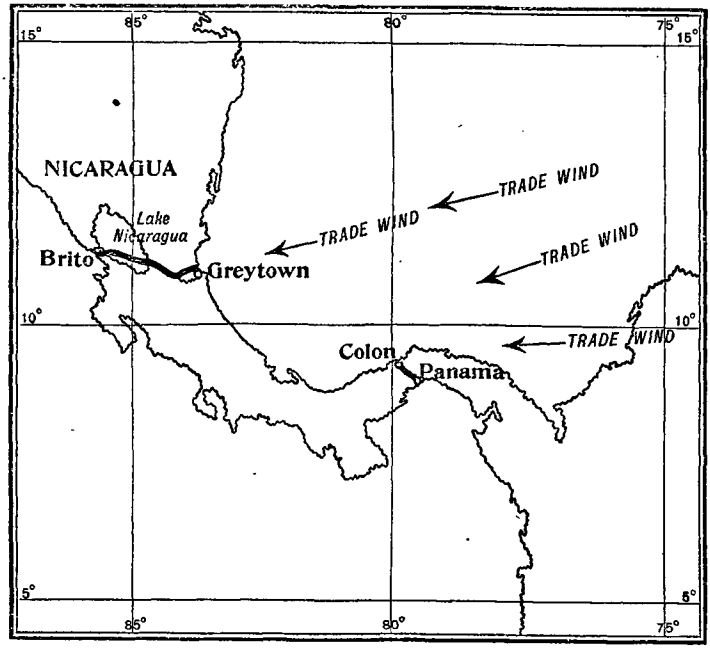
For the traffic from North Pacific to New York, the Panama route is equal to the Nicaragua route for slow steamers, shorter for medium speed steamers, and still more for fast steamers.

For the traffic from South Pacific to New Orleans and to New York, the Panama route has the advantage in distance and in time for all kinds of crafts.

COMPARATIVE CHARACTERISTICS OF OPERATION

XII

WINDS



NICARAGUA.—The trade winds when they strike the high barrier of the Nicaragua and Costa Rica ranges find the San Juan Valley as the only

[1] *Report of the Isthmian Canal Commission*, p. 250.

passage opening in their direction. They are forced into this passage and blow constantly through it with a violence which will be a continuous danger for navigation in the narrow canal channel.

PANAMA.—The location of the canal being from northwest to south-east is perpendicular to the trade-winds, and the canal line is completely sheltered from their access and consequent disturbances.

COMPARATIVE CHARACTERISTICS OF OPERATION

XIII

RAINFALL

NICARAGUA,[1]
Average Rainfall at Greytown, annually,
265 inches.

PANAMA,
Average Rainfall at Colon, annually,
129 inches.

NOTE.—The extreme and characteristic abundance of rain on the Nicaragua Isthmus (the greatest of the continent at Greytown), is to be taken into very serious consideration in connection with both canal construction and operation. A tropical rainfall obscures the atmosphere and will often interfere with navigation like a fog. The Nicaragua rainfall complicates greatly the problem of safe navigation already amply embarrassed with the questions of winds, currents of the river, sharp curves, maintenance of proper depth of channel in river, transit in an open body of water like the interior sea of Nicaragua, through a narrow channel, volcanic activity, etc., etc.

These simple and lucid diagrams crushingly demonstrated the great superiority of Panama.

It has been said, and repeated, that the great obstacle at Panama was the depth of the Culebra Cut.

The diagrams established that, thanks to the works executed by the French, this difficulty had been wiped out. There would have to be in Nicaragua a cut three times deeper than the deepest at Panama.

The argument generally believed was that, though the Nicaragua route was longer, it was because ships had to pass an enormous Inland Sea where navigation was free. This woeful error was also exposed. The so-called facility did not exist. On the contrary, the diagrams showed ships to be submitted to dangerous navigation in a cut nearly twenty-eight miles long under water in the lake, the enormous surface of which was agitated by frequent storms.

[1] *Report of the Isthmian Canal Commission*, p. 109.

If navigation was difficult on the lake it was not less so outside of it, as ships had to round very sharp curves. At Panama the curves were so much wider as amply to suit the exigences of the longest ships. All that was explained by the diagrams in a simple and eloquent manner. The elements themselves seemed in collusion to assure the superiority of Panama. The trade-winds, which are very strong in those parts, were shown to blow in the direction of the Nicaragua Canal. They would greatly disturb navigation and throw the ships on the rocks. At Panama the Canal line was shown to be at right angles to the direction of the trade-winds. They were therefore unable to enter the Canal line on account of the lateral mountains shielding it from their attacks.

And lastly rain. Even the rain itself was shown to manifest its powerful antagonism to Nicaragua. It remained moderate at Panama.

No pleading could be more demonstrative that this slender pamphlet, each page of which stabbed the Nicaragua legend to the heart and exposed its ineptitude.

It was printed on the 2nd of June, two days before the opening of the debate before Congress. Senator Hanna, overjoyed by the arrival of this impassionate and invulnerable ally, had a copy of it immediately distributed to every Senator.

During the debate, which lasted seventeen days, I could measure the terrible havoc the document had wrought in the ranks of the enemy. It was signed by my name, followed by the title of "Former Engineer-in-Chief of the Panama Canal." I was fighting unmasked and inviting contradiction.

What could the adversary retort? Every page quoted the report of the American Commission from which the figures were drawn!

The eagle was pierced by an arrow made from its own feathers.

It was thus with spiked guns that the Nicaraguan ranks had to fight their battle.

They never ceased to invoke their obsolete gods, all the reports of the American Commissions that had recommended Nicaragua up to the very last one, that of the preceding November. "What!" exclaimed they. "Are we going, for an economy of sixty million dollars, to sacrifice the work of American genius for the glory of another nation?"

Senator Mitchell invokes Virtue against Panama

Naturally all the libels against the work of French genius that some Frenchmen, betraying the interests of their country, had for years circulated, were taken up and religiously reproduced.

The representative of Virtue was Senator Mitchell of Oregon.

This American "Pecksniff" was the worthy complement of the Pecksniffs of France. He repeated all their contemptible calumnies with indescribable satisfaction. But Truth was to have its revenge. Some time later a scandal came to light concerning a case of land-grabbing in the State forest-preservations in Oregon. The virtuous Senator was dragged before the courts and condemned to prison. The holy man, preacher of Virtue, died of the shock.

When he delivered his speech, an amusing scene took place. Next to him sat Senator Morgan, and I was in the gallery witnessing the explosion of this mud-volcano.

The discipline of the American Senate is very severe, and the attitude of the spectators is under strict surveillance.

I remarked that Senator Morgan was observing me with close attention. He hoped to see the indignation provoked in me by Mitchell's speech bring forth a shrug of the shoulders of a disdainful smile. I read in his eyes that he wished it intensely. He wanted to seize the least possible pretext to provoke a monumental scandal, and to denounce the insolent foreigner who was showing contempt for senatorial dignity.

Beholding his anger increase I preferred not to run risks. He was ready to provoke me on any or every pretext. The cause of Panama would have been the victim of it, whatever I might have done, or rather whatever I might not have done. I left the Chamber.

The Debate in the Senate dominated by Earthquakes

The whole debate was dominated by the question of earthquakes. Senator Hanna had ordered a reproduction, on a large scale, of the map of the volcanoes of Central America, which had been drawn out for the New Panama Company by the eminent French mining engineer, M. Bertrand, of the French Geological Survey, to be hung on the wall.

The New Panama Company had taken up the theory, which I had developed in my book of 1892, about the volcanic risks of Nicaragua, as, indeed, it had taken from the same book my project of a Panama Lock Canal. M. Bertrand had been entrusted with the work, and he had annexed to his interesting report the map in question.

How the "Sun" intervened in the Discussion

As I have already related, I had, just after the explosion of Mont Pelée, sent to every Senator a letter with the text of my lectures given in 1901. I called their attention to the practically identical words I myself had applied to Nicaragua and Panama and those the geologist Hill had used in the *Evening Post*, concerning the Lesser and the Greater Antilles.

Some days afterwards, this comparison made between the volcanic dangers of the Lesser Antilles and of Nicaragua, and the relative security of the Greater Antilles and of Panama, brought me co-operation of the highest value.

During a dinner at the house of my dear old friend, the Hon. John Bigelow, I expounded my views. One of the guests was Mr. Dana, then proprietor of the important New York paper, the *Sun*.

He was very much struck with them, and invited me to have a talk on the subject with the *Sun's* editor-in-chief, Mr. Edward P. Mitchell.

When Mr. Mitchell saw the mass of proofs I had to offer in support of my theory he became really enthusiastic.

He immediately published, on the 12th of May, a brilliant editorial on the subject. This article ranked the *Sun*, hitherto neutral, definitely on the side of Panama. Throughout this entire period of strain, which lasted until the vote on the 19th of June, that journal was the only organ of public opinion in the United States which took up the defence of Panama.

Formerly the *Evening Post* had shown certain friendly dispositions towards Panama, but its attitude changed as the moment of the final trial drew near. I insist again on this point, that not one word was printed in favour of Panama by any newspaper in the United States at the time save by the *Sun*, and the greater portion of the newspapers were heading a violent and almost exasperated campaign for the national solution, Nicaragua.

I give here a part of this sensational article which may be called historical, because it was the starting-point of this so difficult, and one may also say so unexpected a victory. It was entitled :

"THE VOLCANOES AND THE CANAL

"The Nicaragua route is lined with volcanoes, some of them having demonstrated the tremendous activity of the fires underlying that part of Central America. It is sixty-seven years since Coseguina, in the north-western corner of Nicaragua, burst forth with an explosion which lasted for forty-four hours. The noise was heard for a thousand miles; the ashes were carried by the wind fourteen hundred sea miles from the crater. The mass of matter ejected in that eruption of Coseguina has been computed as great enough to have covered a surface equivalent to eight times the surface of France. The eminent French engineer, Bunau-Varilla, has estimated that during the forty-four hours of activity the output of stones and ashes every six minutes of the time was equal in volume to the total volume of the prism of the Nicaragua Canal, as calculated by the Commission. That is to say, Coseguina poured out in six minutes what it would take the Canal contractors eight years to excavate.

"Such another volcano in constant activity, with its last great eruption as recent as 1883, dominates the island, in Lake Nicaragua, which every ship will skirt on the passage from Greytown to Brito. This is Mount Ometepe. On the same island is a second volcanic peak, that of Madera.

"In 1844, seven years after the explosion of Coseguina, occurred the great earthquake which destroyed the city of Rivas, near the Pacific shore, and wrought great damage even at Greytown, a hundred and fifty miles away on the Atlantic side. The line surveyed for the Nicaragua Canal between the lake and Brito runs only five miles from Rivas.

"We now quote from M. Bunau-Varilla who, although formerly engineer-in-chief of the Panama Canal and, therefore, a partisan of that route, is entitled to be heard on any question of fact with the respect due to his personal character and professional eminence:

"'*In Panama there is, within a distance of one hundred and eighty miles from the Canal, no volcano, even extinct. The Isthmus there, since its formation in the early Quaternary Period, before man appeared on the earth, has not been modified. This is quite the contrary in Nicaragua, which has always been the site of seismic convulsions, whose lake was formerly a gulf of the Pacific Ocean, and whose name was associated with the most terrible volcanic explosion (Coseguina) ever recorded in history before the Krakatoa explosion.*

"'*It must be borne in mind that these terrible menaces would mean, if realised, not only the destruction of that costly canal, but the ruin of the immense interests on both sides of the Atlantic, which will have been developed by the great waterway, and receive a death-blow by its paralysation.*

"'*Nothing similar can be feared in Panama, as no trace of any volcanic activity may be found on that Isthmus, whose rare and small seismic vibrations come from distant centres.*'

"A few days ago the question of volcanic menace seemed so remote as to be almost negligible in the consideration of canal legislation. To-day, on account of the impressive demonstration made by Pelée and Morne Garu, that question merits, and should receive in Congress, the most careful attention."

The extraordinary series of favourable chances to which I have several times alluded was once again made manifest.

The dreadful catastrophe of Mont Pelée, which had so violently moved public sentiment, had given a startling prominence to my constant argument as to the danger of seismic disturbance in Nicaragua. It was certainly that which brought to me the powerful help of the *Sun*.

Two days had not passed when the news reached New York of another coincidence, equally extraordinary.

Providential Eruption of Momotombo in Nicaragua

On the 14th of May a cablegram from New Orleans was published announcing that a violent earthquake had taken place on the shores of Lake Managua, an annex of Lake Nicaragua. It was due to the eruption of Momotombo, a volcano near by, and had destroyed the wharves of the town of Momotombo, the terminus of the railroad from the lake to Corinto on the Pacific.

This news gave a fresh opportunity for the scintillating pen of Edward Mitchell to penetrate the minds of those who had underrated the facts he had brought out in his first article, two days before.

On the 17th of May he devoted an article to the Momotombo:

"His great voice has uttered a warning of incalculable value to the United States. Here is," wrote the eminent journalist, "what it said:

"'My compliments to Senator Morgan. I beg leave to inform that gentleman, and others whom it may concern, that I am not only alive but am capable of sending down, without notice, through Lake Managua and the Tipitapa River into the adjacent Lake Nicaragua, a tidal wave of sufficient volume and malignity to overwhelm any canal that engineering skill can construct through this country, and to wipe out every dollar of the two or three hundred millions which the United States Government may be foolish enough to invest within the reach of the waters subject to my power. Precisely the same thing can be done with equal facility, and on equally short notice, by my neighbours and allies, Pilas, Nindiri, Zelica, Santa Clara, Oros, Isla Venada, Fernando, Mancaron, Zapatera, Mancaroncita, Madera, Omotepe, and the Hell of Masaya—any one of them or all combined."

Mr. Mitchell concluded thus:

"We respectfully inquire of the Senate of the United States whether Momotombo did not tell the truth."

It is a curious thing to remark that in my book of 1892 I had written:

"The explosions of the volcanoes of this country, Nicaragua, occupy the front rank in the history of seismic movements. One of them, Momotombo, has even won a place in literature (*The Reasons of Momotombo*, by Victor Hugo)."

After Victor Hugo, Mr. Mitchell had been the interpreter of Momotombo, and written under its dictation.

On the 2nd of June the discussion in the Senate was opened, dominated by this admirable series of articles, which concentrated on Nicaragua the emotion caused by the explosion of Mont Pelée, and the destruction of St. Pierre. When the Senators heard the second part of the speech of Senator Hanna they had in hand the short, clear, and cutting summing up of the whole question, which I had condensed in thirteen diagrams. To the double pressure of these two forces of logic and truth acting from without was simultaneously added the effective action of Senator Hanna and his personal prestige from within.

Nothing less than the co-operation of this treble and irresistible pressure could break the apparently immovable line of the Nicaraguan phalanx.

It wavered, it gave way at some places, but it maintained its position. The majority remained on the Nicaragua side.

MITCHELL OF THE "SUN" CHASTISES MITCHELL OF THE SENATE

The brilliant pen of Edward P. Mitchell continued its dazzling campaign in the *Sun*. On the 9th of June he answered the speech of

Senator Mitchell of Oregon, and castigated his hypocritical arguments. Here are some extracts from this article :

" On Saturday, Senator Mitchell of Oregon presented these somewhat astonishing reasons why the Government of the United States should not undertake to construct a canal by the way of the Isthmus of Panama.

" ' *It is a sewer.*

" ' *It is the certainty of moral defilement.*

" ' *It cannot be touched without certainty of deadly moral infection.*

" ' *All the waters of the multitudinous seas cannot wash Panama clean.*

" ' *It is simply too rotten to be touched without defilement.*

" ' *It is too rotten to be looked at without nausea.*

" ' *Panama cannot be touched with safety by the American people.*

" ' *It must be shunned as a place incurably affected with the most deadly plagues.*

" ' *It is a dung-heap of crime.*

" ' *It is a perpetual monument to human credulity and human villainy.*

" ' *It is a sink of iniquity wherein no nation can delve without certainty of irremediable pollution.*'

" Both the Senator from Alabama (Morgan) and the Senator from Oregon (Mitchell) have dwelt with such intense and self-blinding partisanship upon the subject that their minds have become morbid. They apparently have come to personify the Panama route in their imaginations, and to regard it, not as a mere inanimate strip of land devoid of moral qualities, good or evil, but as a hateful, immoral, repulsive, vile, consciously wicked and actively malignant Thing, to be denounced with the harshest of words that the dictionary can supply. . . .

" Mr. Harris of Kansas, another advocate of the Nicaragua route, is to address the Senate to-day or to-morrow. He is a gentleman of practical rather than sentimental intellect. . . .

" These circumstances encourage us to hope that, instead of following the rhetorical example of his two associates on the Committee on Interoceanic Canals, he will endeavour to present in intelligible form the reasons why he believes that the carefully considered and extremely weighty recommendation of the experts of the Isthmian Canal Commission ought to be rejected. Among other things Senator Harris might profitably devote part of his time to explaining what advantages of the Nicaragua route outweigh the superiority of the Panama route in the following particulars :

" (1) Excavation to be done : Nicaragua, 227,711,605 cubic yards; Panama, 94,863,703 cubic yards.

" (2) Quantity of steel required : Nicaragua, 40,500 tons; Panama, 32,624 tons.

" (3) Deepest cuts : Nicaragua, 297 ft. at Tamborcito; Panama, 103 ft. at Culebra. . . ."

(Here followed all the other figures, which I had given in my pamphlet of the comparative characteristics of Panama and Nicaragua.)

The article finished thus :

" The facts have just been compiled and published, in the interest, probably, of the sale of the New Panama Canal Company's property, by M. Philippe Bunau-Varilla, formerly the engineer-in-chief of the Panama Canal.

" Mr. Morgan or Mr. Mitchell would instantly dispose of this impressive

exhibit by saying that it was made by a Frenchman. We hope Mr. Harris will not consider it beneath attention on that account.

"It is true that M. Bunau-Varilla is a Frenchman, but his facts are not French. They are derived for the most part from the report of the American experts constituting the American Isthmian Canal Commission; and they summarise the reasons, which led these distinguished American engineers and practical men to report unanimously in favour of adopting the route, which Senator Mitchell is unable to look at without nausea."

One could not in fewer words, and more humorously, lash the vulgar patriotism to which the Nicaragua party appealed and from which they expected triumph. It was impossible to challenge more justly the incapacity of the partisans of Nicaragua to raise a single refutation of the clear but terrible list of arguments I had formulated against them. One could not by disdainful irony more utterly destroy the hypocritical and mendacious legend under which the unworthy sons of France had criminally concealed its greatest work of the day. This legend, then, enjoyed universal credence, and Senators Morgan and Mitchell handled it with dexterity for the victory of their cause.

But if the people of Nicaragua held their own I had cut off all retreat on technical grounds by making apparent, tangible, and obvious to everybody, for the first time during half a century, the superiority of Panama. However, they had on their side the benefit of long habit followed by a whole nation, and the mass of unanimous opinion deep graven in men's minds by the reports of all the technical commissions of America for fifty years.

As they could not evade the truth on technical grounds, they attempted a supreme manœuvre on the still more menacing question of earthquakes.

Misleading Telegram sent by the President of Nicaragua

The President of the Republic of Nicaragua, M. Zelaya, was requested to act. He telegraphed from the capital of Nicaragua: "News published about recent eruptions of volcanoes in Nicaragua entirely false."

The cablegram was addressed to the Minister of Nicaragua at Washington, Mr. Corea, in reply to a telegraphic query made by him. The two cablegrams were triumphantly brought to the Senate by Mr. Morgan.

On the strength of these official documents he proclaimed with all his confederates, that the volcano argument was nothing but a trick, and that no volcano in activity existed in the whole territory of the Republic.

He, on the other hand, presented an explicit and solemn declaration of the Minister, Mr. Corea, which produced a great impression on

account of its official and authoritative character. Mr. Corea asserted in substance that: "Nicaragua had had no volcanic eruptions since 1835, and that at this moment the Coseguina emitted smoke and ashes but no lava."

It was an absolutely false statement, but it was official. The waverers were comforted. They asked themselves if they had not been the object of an unjustifiable imposition on the part of the partisans of Panama, in the hope of carrying the vote. A profound reaction for Nicaragua took place among the half-converted ones.

The "Star" represents Hanna designing Fictitious Volcanoes

In the leading paper of Washington, the *Star*, was published a cartoon wherein Senator Hanna was depicted painting volcanoes on a map with an air of keen satisfaction.

With him was a man in the attire of an art student, the fancy costume supposed in America to characterise the Frenchman.

An amusing incident was that I myself was the witness of the creation of this malicious allusion to my relations with Senator Hanna.

Mr. Noyes, the head of the *Star*, had invited my brother and myself to visit his printing office. As we passed through the Art Department I saw a young artist drawing a cartoon. On his sheet of paper there was for the moment nothing but the frame of a picture, absolutely nothing more. I asked for the subject of the cartoon. Mr. Noyes dodged the question and, seemingly embarrassed, took us into another room. When I opened the next number, I found on the front page the same frame, but now surrounded by certain figures, among whom were Senator Hanna and myself. Inside the frame was a picture which Senator Hanna was painting under my direction: it was the supposed fictitious map of the Nicaragua volcanoes. This publication was all the more ominous as the *Star* was a strong Republican paper, and was thus directing its arrows against the head of its own party owing to his anti-Nicaraguan attitude.

Official Document demonstrating Present-day Eruptions at Nicaragua

It was absolutely necessary to reply with emphasis and to refute the false statement by an explicit and undeniable answer. But it could have no weight unless official.

How could I obtain such a document? Nicaragua was far away. The authorities had shown their bad faith. It seemed impossible to

THE NICARAGUAN STAMP (1900 ISSUE) USED BY THE AUTHOR AS PROOF OF THE PRESENCE OF ACTIVE VOLCANOES IN NICARAGUA

[The stamp is here reproduced four times its natural size.]

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procure anything whatever. We were reaching the end of the discussion. If the vote were to be taken under this impression Panama was done for ever. Only six or seven days remained.

The game, however, was won.

Fortunately I had a sudden inspiration.

The official documents, which I was looking for, I had under my very hand. They were the postage stamps of the Republic of Nicaragua, which I had mentioned in the pamphlet containing the substance of my lectures of 1901. I hastened to call on all the postage-stamp dealers of Washington. I was lucky enough to find there ninety stamps, that is, one for every Senator, showing a beautiful volcano belching forth in magnificent eruption. It was the up-to-date proof of the existence of these volcanoes in activity, which the officials of the Nicaraguan Government denied.

I hastened to paste my precious postage stamps on sheets of paper. On the top of each was written: "Postage Stamps of the Republic of Nicaragua." Below the stamps were written the following words, which told the whole story: "An official witness of the volcanic activity of Nicaragua." Lower down was the description of the volcano, which was, curiously enough, precisely Momotombo, with its cloud of smoke. By a singular coincidence the foreground represented the precise wharf that had been destroyed by an earthquake caused by the eruption of Momotombo according to the news published one month earlier.

While I was collecting these irrefutable testimonies the *Sun*, which, throughout the whole campaign never missed a single argument, described this stamp in its issue of June 12.

Fearing fresh false statements, I shot this final arrow only on the 16th of June, three days before the vote.

Immediately after receiving the stamp Senator Gallinger asked the Senate if it were reasonable to undertake this colossal work in a country which had taken as its emblem on its postage stamps a volcano in eruption.

The battle was won. Truth at last triumphed. But how narrow was the margin between success and defeat!

The powerful and magnetic personality of Senator Hanna; the penetrating and clear demonstration of the overwhelming superiority of Panama by the diagrams; the obvious demonstration of active volcanoes in Nicaragua by the postage stamp; the splendid articles of Edward P. Mitchell; the deep impression produced by the catastrophe of St. Pierre—all that had contributed to victory. These active and powerful forces had washed away, one by one, the members constituting the majority for Nicaragua. If, however, four Senators fewer had been won over to Panama, Panama would have been lost.

Victory of Panama in the Senate

On the 19th of June, 1902, the partisans and adversaries of Panama were counted in the first vote taken. The Bill passed by a majority of eight.

The Spooner Bill gave the preference to Panama if a clear title could be obtained for the property of the Canal Company, and also if a satisfactory treaty could be made with Colombia.

The President of the United States was to construct the Nicaragua Canal if either of these conditions were unfulfilled.

It was a victory bought at the cost of incredible efforts, a victory which up to the last moment seemed to be well-nigh impossible.

For the first time since the wretched December 14, 1888, when the course of the great enterprise was suddenly brought to a standstill, I saw this series of trials and struggles lasting nearly fourteen years crowned by success, I could say that at no moment had I despaired of the triumph of Truth, and that at no moment had I ceased to think of it and to work for it.

At last I could castigate those who had so long and so perfidiously fought in France for the abandonment of this great French interest.

I wired to the *Matin :*

"*Washington, June* 19. After fifteen days of desperate struggle the majority of the Senate, answering the call of Truth and Science rather than that of popular prejudices half a century old, has adopted the Panama route, the French project, in preference to the Nicaragua route, the American project.

"This memorable victory of French genius, unappreciated and proscribed by France, is the everlasting condemnation of the calumniators who have poisoned public opinion and thus excited a blind and criminal ostracism against the glorious conception of Panama.—P. Bunau-Varilla."

The whole American press reproduced this cablegram. Many London papers did also. *The Times* made the following comment :

"M. Philippe Bunau-Varilla, one of the ablest French civil engineers who took an active part in the construction of the Panama Canal, and who, since its suspension, despite the attacks made on him, has constantly promoted its completion, has been for a long time in America for that purpose. It is not for me of course to vindicate his character or theories, but he is a very able engineer and nothing has impaired his belief in the final success of the Canal. In telegraphing from Washington to the *Matin* the adoption by the Senate of the Panama route he says :

"'This memorable victory of French genius, unappreciated and proscribed by France, is the everlasting condemnation of the calumniators who have poisoned public opinion and thus excited a blind and criminal ostracism against the glorious conception of Panama.'

"This is perhaps a little premature, but M. Bunau-Varilla is on the spot, is actively engaged in the matter, and, according to all appearance, seeks only the moral satisfaction of seeing the completion of a work of which he has been the unwearied champion. It is now known, moreover, that the Panama, like every question which has agitated France since the birth of Boulangism, was merely a weapon used by the enemies of the Republic to serve their own ends. The Panama Canal, therefore, is no longer what it was formerly, and whenever completed there will be a great but barren reaction against those who have prevented its remaining a French undertaking. If the Canal is purchased by the United States its completion will, of course, be a certainty, and will be welcomed by mankind, whatever the flag which will float over it."

The senatorial vote of June 19, 1902, was not yet the final victory of Panama, as *The Times* indeed had hinted.

It was necessary to fulfil the two conditions attaching to the preference for Panama. The first one was without the slightest significance, except for lawyers eager to give an exaggerated idea of their importance. The Company had the absolute right to sell its property. Nobody ever dreamed seriously of denying this elementary right to them, except the sort of people who wear themselves out in efforts to persuade their neighbours that it is extremely difficult to break open an opened door.

The second condition, the treaty with Colombia, was to present well-nigh insurmountable difficulties.

But before thinking of fulfilling these two conditions it remained to break down the resistance of the House, still bound by the nearly unanimous vote for Nicaragua some five months earlier.

Effect of a Postage Stamp on the House of Representatives

The general opinion was that the popularity of Nicaragua would remain intact in the House, and that the opinion of the Representatives would not change. I received from several prominent men, certain to be well informed, letters expressing great fear as to the final outcome.

Experience had taught me how the obstacle could be overcome. I left immediately for New York, and spent some time hunting about for 500 odd Nicaraguan stamps and an equal number of the pamphlets containing the substance of my lecture of 1901. I wished to repeat in the House what had succeeded so well in the Senate.

Meanwhile negotiations had been begun between a delegation of the Senate and a delegation of the House. The resistance was strenuous on the part of the latter.

I returned to Washington with my documents as quickly as I could, and one morning each Representative found in his letter-box my sheet of paper with the volcano postage stamp in the middle,

and the necessary explanations printed above and below it. It was pinned on the first page of my pamphlet. A mark was made to call attention to the corresponding passage written more than a year before.

The impression made was as immediate as would have been that produced by the apparition of a Medusa's head. The same evening it was announced that the delegates of the House had surrendered.

On the following day the Spooner Bill was adopted with only eight dissenting votes, and on the 29th of June it was approved by the President of the United States.

The first line of fortifications had thus been taken. To capture the castle it was still necessary to obtain a treaty with Colombia. It seemed at the time a relatively easy matter. It was, however, to prove impossible.

But for each fresh obstacle a fresh solution must be found. As the policy of Colombia was to kill the Panama conception, I wrested from her the territory on which she thought of accomplishing this great iniquity. This, however, belongs to an ulterior chapter, and I must dwell for the time being on the victory of 1902.

Enthusiasm when Panama rises from the Grave

The joy which I felt at this victory, so improbable and so long and so ardently desired, was intense.

The demonstrations of gratitude and friendship which came to me from various sides was the sweetest reward of so many efforts.

I should like to reproduce all these letters of congratulation. I shall quote only a few of those because of their importance as documents showing the state of mind prevalent at that time.

The first was sent to me by an intimate friend of Senator Hanna a few days after the Bill was approved by the President and thus become a Law. It was Colonel Myron T. Herrick, who afterwards became Governor of Ohio and who is now Ambassador of the United States in Paris. It was he who had so warmly recommended my theories to Senator Hanna's attention and thus opened to me the path to victory. He wrote to me on July 12, 1902 :

" *Your success* in Washington gave us great delight. We spent the 4th of July at the Hannas' and you were mentioned many times. Senator Hanna is, of course, greatly pleased with *your success*, and spoke in the highest terms of you."

In the universal happiness M. José Vicente Concha, Minister of Colombia, himself very graciously wrote to me on the 19th of June, the day of the vote :

"I remain very grateful to you for the important work you have accomplished. It is beyond doubt that in the result of to-day much is due to your effort. I congratulate you on it."

M. Concha had now grasped the terrible difficulty of the situation, and saw how well grounded were the views that I had been forced to express crudely to him. Unfortunately, he was later on to return to his former obstinacy. To my great regret we were to be once again on opposite sides.

Finally, I will quote two letters from among those received from my Paris friends. One is from M. Edouard Lebey, then president of the Agence Havas, the other from M. Regnault, then president of the *Petit Parisien*, the paper with the largest circulation in the world.

I choose these letters because they emanated from men particularly well informed with regard to the realities of contemporary history. Both were men of far-seeing minds, keenly alive to anything that could increase the part played by France in the world. Their eloquent letters are evidently dictated by the emotion they felt, when they saw a service rendered to France, which they believed beyond the limits of the possibilities of real life.

"*Paris, July*, 1908.

"MY DEAR FRIEND,

"Your unanswerable pamphlet has reached me on the same day that the telegraph has informed me of the memorable success uniquely and marvellously due to your efforts.

"Though my faith in you has not vacillated for a single instant, the obstacles were of such a character that one could reasonably despair of seeing a single man overthrow them. Every time I thought of the circumstances I doubted; but every time I thought of you I recovered my certainty of a final triumph.

"It is because I know you as one of those rare men, who are literally capable of carrying out the unfeasible and of realising the impossible. You have proved it by restoring to life a thing so condemned, so forgotten, so dead as the Panama Canal.

"The absolute abandonment, into which this admirable conception had fallen, the ferocity with which so many have striven first to make it fail, and afterwards to bury it in oblivion; the atmosphere of shame, of powerlessness, and of disgust, which had been created around it—all that did not rebuff you. I even suppose that you have been stimulated by the universal error, as much as by the clear sight of the truth. At any rate the campaign which you have conducted in France, and in which you spared neither your money nor your labour in the hope of attacking public incomprehension and private apathy, is one of the finest efforts of our time, and in France it is unique. You have accomplished this extraordinary act of substituting yourself for your country in an affair of capital importance, and you have saved what neither the nation nor the authorities, not even the parties interested, were any longer capable of safeguarding.

"All the difficulties which a Frenchman can meet in France, in accomplishing a French work, have not discouraged you.

"You hastened towards the scene of battle. There you were a foreigner in the midst of a somewhat jealous democracy. You held your own against all adverse interests, all sentiments, all objections, all prejudices. Furthermore, it has been necessary for you to watch the hazardous proceedings of an indolent company, and, on the other side open delicate nogotiations with the Colombian Republic.

"In looking at these few pages, which you call the 'last shell' (the comparative characteristics of Panama and Nicaragua), which indeed do not speak but strike with the combined forces of picture and figure, I had the sensation of the last instant of the fight, of the supreme moment, when all eloquence is exhausted, is blunted by contradiction and repetition. All having been said over and over again, you finally picked up on the battlefield the most elementary and the most powerful weapon: the fact, the measurement, the comparison of measurements—in a word, the thing on which there is no possible discussion and which forces the enemy to surrender or to retreat to the field of bad faith.

"I do not know, my dear friend, if France will be as proud of you as she ought to be, and I do not know whether having turned a deaf ear to you, she may not even fail to applaud you. But it is at least necessary that your friends should express what they think of you.

"I have written to you not knowing if I may not be too ill on your return to say it to you.

"Believe me, yours always cordially and devotedly,

"EDOUARD LEBEY."

"*Paris, June* 28, 1902.

"MY DEAR FRIEND,

"*Le Matin* has published the vote of the American Senate. It gives to-day that of the House. It means that the Canal is finally lost for the French who have abandoned it.

"Humanity will owe to you this great work. When for you the evening falls, you will have the right to say that your day has not been lost, because you will leave behind you the most gigantic work and perhaps the most useful work for humanity of which man has ever dreamed.

"The importance and the nature of this enterprise probably did not permit it to be carried out by private initiative under economical conditions without the co-operation of a great nation. Political reasons determined that that nation was to be the United States.

"Therefore cherish no regret after having done more than conceivable in order to preserve for your country the glory and the profit of this renewal of the face of the world.

"I do not congratulate you. I merely say to you, and in all sincerity: You are a great man.

"E. REGNAULT."

I left for France in July 1908 in search of a well-deserved rest after this campaign, in which every hour had been marked by a terrible strain.

After a few weeks the American Government sent to France an Assistant Secretary of State in the Department of Justice, Mr. Charles W. Russell. He was to study the question of the ability of the New

Company to sell the Canal. This was in order to satisfy the first condition of the Spooner Law.

The Hon. Charles W. Russell was an eminent jurist, who soon cleared up this very simple question, which only political passion had complicated.

Mr. Knox, head of the Department of Justice, came himself to Paris in order to confer with Mr. Russell, all of whose conclusions he fully approved.

CHAPTER XXIII

SECOND SERIES OF NEGOTIATIONS WITH COLOMBIA FOR THE HAY-HERRAN TREATY. FIRST WARNING TO BOGOTA AS TO THE POSSIBLE SECESSION OF PANAMA

THE question of the Treaty with Colombia—the second condition of the Spooner Law—did not go so easily.

SOLEMN WARNING TO MARROQUIN: RECALL OF CONCHA

After the victory of Panama, Bogota's opposition had again been fanned into life. The eternal game of see-saw was beginning again.

M. José Vicente Concha once more assumed the attitude that he had adopted at the outset. He had temporarily abandoned it, as may be remembered after my cablegram to the principal paper on the Isthmus.

Certain events happened in the autumn which deeply hurt his patriotic pride and increased his resistance.

The Isthmus was then, like the rest of Colombia, still in the throes of Revolution. At a moment of imminent conflict Admiral Casey, who was in command of the American forces, forbade the utilisation of the railroad, whether by the Government or the rebels for the transport of troops.

This action was in strict harmony with the obligations which the Treaty of 1846 conferred upon the United States for the maintenance of order along the line of transit across the Isthmus.

It was in perfect harmony likewise with what I myself had seen done in 1885 during the Revolution which had entailed the burning of Colon.

The Secretary of State, Mr. Hay, tried to sweeten the bitterness of M. Concha by ordering on the 10th of October, 1902, that this interdiction be confined to the most obviously grave cases.

But M. Concha could not content himself with this satisfaction. He refused to tolerate the treaties which offended his national pride, however justifiable and formal were their stipulations.

The negotiation of the treaty for the Canal Concession to the United States naturally suffered from this state of affairs. Towards the middle of November a rupture was again imminent.

The papers which had unwillingly abandoned the cause of Nicaragua saw their hopes revive. The *New York Herald*, the *New York Times*, the *American*, the *World* rejoiced at the opening of new horizons. The ardour of former days was resuscitated and the American Government was incited to break with Colombia. The situation was becoming dangerous and a sudden oscillation of opinion might at any moment change victory into defeat.

I resorted again to the method of direct intervention, and I cabled to President Marroquin. I did not hesitate to make him face the danger of a possible secession of Panama. Of course I used a courteous formula, but the allusion was transparent.

This cablegram, sent on November 23, 1902, one year all but twenty days, that is, before the Revolution, which I was to bring about at Panama, was the first and formal notification of it to the Colombian Government. I was to renew it twice, later on, the first time to President Marroquin in June 1903, and again in September 1903 to the Vice-President of the Senate, General Nel Ospina. Here is the telegram in question :

"MARROQUIN,
"*President of Republic, Bogota.*

"Extremely perilous situation justifies my submitting following considerations.

"The suspension of signature of Panama Canal Treaty on the eve of the meeting of Congress creates a situation having three issues equally dangerous for the vital interests of Colombia.

"Either the final selection of Nicaragua as the Spooner Law orders; or the loss of all the results obtained and indefinite postponement if, towards the end of next February, when present Congress adjourns, everything is not voted and settled; or the *development of international events of the gravest order, from which might result that the Canal be made at Panama against Colombia instead of being made with her amicably.*

"The only hope is in a decisive radical action of the Supreme Government of the Republic.

"P. BUNAU-VARILLA.

"*Waldorf Astoria.*"[21]

This energetic appeal seems to have been heeded, as M. Concha was immediately recalled. However, the recall may have been due to independent reasons.

On December 1 all the papers announced the departure of the Minister of Colombia and his substitution by a *Chargé d'affaires*, M. Herran.

This gentleman immediately showed the most conciliatory dispositions as regards drawing up the treaty.

The difficulties raised by M. Concha had mainly to do with the division of sovereignty. They were smoothed over. The thorny question of money was then taken into consideration.

I ARRANGE THE DIFFERENCE WITH COLOMBIA BY FIXING THE INDEMNITY

The United States had announced their decision not to admit in the case of Panama of a compensation higher than $10,000,000, as the Republic of Nicaragua had only asked for $7,000,000 for the total indemnity.

However, the United States reluctantly expressed her willingness to grant an annual rental of $10,000, and after endless discussions $100,000. On reaching this extreme limit the United States explicitly declared they could go no further.

On the other hand, Colombia imperatively demanded a rental of $500,000.

I went to Washington in the latter half of December, so as to judge carefully the gravity of the conflict, and to find some solution. After an attentive study I became persuaded that the equitable and complete solution of the difficulty was the payment by the United States of an annual rental of $250,000 over and above the cash payment of the indemnity of $10,000,000.

It was, in fact, the reproduction of what, in April, I had written to M. Concha after his arrival, as the maximum that could be obtained. It was a maximum below which it was then prudent to remain, as I had advised everybody to do, in order to ensure the success of the Spooner Bill.

The sacrifice was very great for both parties, but as I was persuaded that the solution was equitable, I was resolved to force it through.

To that end I resorted again to the method, which up to that time had so well succeeded, and I telegraphed on the 19th December, 1902, at 1.25 P.M. to the President of Colombia as follows :

"MARROQUIN,
"*President of Republic, Bogota.*

"Situation improved by removal of diplomatic representative of Colombia is exposed to new and grave perils, on the question of annual rental.

"Though the Government here thinks to have reached the maximum with $10,000,000 cash and annual rental of $100,000, I believe that a firm, final decision of Colombian Government to accept $10,000,000 *plus* annual rental of $250,000 would have much chance of saving the situation if the offer of signing immediately the Panama Canal Treaty accompanies the said proposition.

"P. BUNAU-VARILLA."

On the day following I wrote to Dr. Herran, the Colombian *Chargé d'affaires*, recommending him to make every effort for the success of this solution.

On December 23, having waited in vain for the return to Washington of Senator Hanna, then out of town, I wrote him in order to communicate to him this solution, and I pressed him to do all in his power for its adoption.

I had nothing more to do in America, but to wait for the Bogota decision, which I expected would take longer than the one of the preceding month. On the other hand, I preferred to be absent from Washington when the solution arrived, which I anticipated would dominate the situation.

I had left Senator Hanna with a simple and clear proposition. He certainly was bound to make it his own, and to defend it with all his might. He would be freer, if he were alone, and did not appear to have got the suggestion from me. My previsions were rigorously fulfilled and almost exactly a month later, Dr. Herran acted in conformity with the propositions outlined in my telegram to President Marroquin.

On January 22, 1903, at 5 P.M., the Hay-Herran Treaty was signed between the United States and Colombia.

Nothing remained to be done but the ratification by the two interested Powers.

Senator Morgan immediately began his series of attacks. He acted like a pettifogging country solicitor, and criticised the supposed insufficient legality of the powers of the Colombian Plenipotentiary, and of the Colombian Government itself. But he had come to be almost alone in the opinions he held.

At Washington, as everywhere, defeat gathers no courtiers, and the unfortunate old man of seventy-nine had to find solely in his own physical forces the means of delaying the vote. He used what in Washington is called "filibustering," which corresponds in English to "parliamentary obstruction."

By his endless speeches he succeeded in reaching the doubly important date of March 4, 1903. It was at the same time the date of the closure of Congress, and that of the expiration of the option offered to the United States by the French company on the 4th of January, 1902, after the formal demand I had published in all the papers of Paris on the 31st of December, 1901.

The obstinate old defender of Nicaragua evidently hoped that this option would not be renewed, and that some other combination might have been effected by the French company.

But the French company had no other alternative but to sell their property for $40,000,000 or to fall.

A year and a half later, moreover—on the 31st of October, 1904—their own concession expired. They had nothing with which to protect themselves against the confiscation of their property by Colombia, save a prolongation, which the Colombians themselves, who were supreme judges of their own cause, were beginning to declare valueless.

The New Panama Canal Company could not do anything else, therefore, but prolong its option to America beyond the 4th of March. But in so doing it committed a new blunder. It did not stipulate as a condition that the cost of the works, as was but just and natural, should be henceforth borne by America. The New Company claimed, later on, the reimbursement of the expenses incurred from the 4th of March, 1903, to the 4th of May, 1904, the date of the transfer of the property. President Roosevelt, who was chosen as umpire, decided against the Company. A line inserted in time, when the option was renewed, would have spared the loss to the shareholders of some millions spent in excavation, and of which America had the benefit without paying for it.

As soon as the 4th of March was passed, and Congress dissolved as prescribed by the Constitution, the President convoked the Senate in extraordinary session.

Nothing remained to be done but to wait patiently until the physical strength of Senator Morgan should fail him.

The Hay-Herran Treaty ratified in Washington, March 17, 1903

Senator Morgan, exhausted by his heroic verbosity, had to surrender on March 17, 1902, and the Senate was at last free to vote.

The Hay-Herran Treaty was ratified by seventy-three votes to five. The Nicaraguan phalanx, which, a year and a half before, certainly numbered more than seventy-three votes against five, was reduced so low that the unfortunate Morgan found only four of his former comrades to keep him company.

The battle had at last been won at Washington. Nothing remained but to have the approval of Colombia.

What reasonable being could then suspect that she would reject the treaty which her dictatorial government had drawn, and which, after the three years of bloody civil war through which she had just passed, was opening up before her an horizon of indefinite prosperity ?

I return to America and meet Nel Ospina

I had left America on December 25, 1902, but about the middle of January, becoming anxious at not seeing Bogota accept my proposition of the 19th December, I decided to return, and I sailed on Wednesday,

the 21st of January. It was the very day, as the *Sun* related in its issue of January 24, when President Roosevelt, after a conference with Senator Hanna, decided to accept the Colombian proposition made in conformity with the indications expressed in my despatch of the preceding December.

The voyage I was undertaking would, therefore, have been useless, had not chance brought me in contact on board with General Nel Ospina. He was the former Minister of War of President Marroquin. He had fallen into disgrace, been arrested, and finally exiled.

We had many talks together on the Canal question. I found him, like many Colombians, literally impregnated with the idea that Nicaragua was nothing but a bluff on the part of America in order to secure Panama.

I demonstrated to him the complete absurdity of this legend, invented by the secret enemies of the Canal and of Colombia.

He was a man of superior intelligence, and his open mind did not reject the palpable demonstration which I developed before him. He promised me to be, on his return to Colombia, a defender and a propagator of the truth that he had recognised. I handed him an article which I had been asked to write for a review and which I had finally withheld. He assured me that he would have it translated and published by a newspaper of the province of Antioquia.

I had no further personal news from him. But soon afterwards he was brought into conspicuous prominence by the events in Bogota. He became a Vice-President of the Senate which was to reject the Hay-Herran Treaty. I sent him on September 13, 1903, a last appeal to save his country from falling over the precipice whither general blindness was leading it.

General Nel Ospina did not answer me.

I was not to see him again until some months later. It was at Washington. I was then Minister Plenipotentiary of the (in his eyes), rebel Republic of Panama.

What I had predicted to him in September had taken place: Colombia was dismembered. He was then trying, with General Reyes to repair the irreparable and to reconquer what would have been so easy to keep, if Colombian politics had known the meaning of loyalty.

We passed one another in the street, henceforth on opposite sides of the gulf opened by the political convulsion of Panama. But this belongs to a later chapter; let us return to the beginning of 1903.

My trip to the United States had not been entirely useless, because it had allowed me to make the acquaintance of the man to whom I sent the final message of warning which might have prevented the secession of the Isthmus.

Once the Treaty signed, its acceptance by the Senate, in spite of the desperate opposition of Senator Morgan, was so far beyond doubt, that I decided not to await the extinction of the forces of the old hero. I embarked again for France on the 24th of February, 1903, feeling perfect security as to the final issue.

The Story of the Defeat of Nicaragua, according to the "Sun"

The *Sun*, as was fitting, celebrated this brilliant victory which every one believed to be final, by a leading article, which appeared at the top of its editorial columns.

It was entitled the "Battle of the Routes." Here are extracts from the beginning and from the end :

"The Senate's nearly unanimous vote for the Canal Treaty, and for the Canal by way of Panama, may properly be placed in contrast with a previous expression of legislative sentiment as to the preferable route for the waterway :

"January 9, 1902. The Hepburn Bill for a Nicaragua Canal passed the House of Representatives amid great applause, by a vote of 308 to 2.

"March 17, 1903. The Colombian Treaty for a Panama Canal was ratified by the Senate by a vote of 73 to 5.

"The remarkable change of policy and of national opinion indicated by these two votes has occurred within fourteen months. In that brief time the battle of the routes has been fought and decided. The victory for Panama has been fairly won, on the merits of the case; and there is now general acquiescence throughout the country. . . .

"Some of the Nicaragua advocates were as bitter against Panama as Senator Morgan has remained to the—for him—bitter end. There has probably never been a swifter reversal of prevailing public sentiment in regard to a question of everlasting importance to the nation and the world. . . .

"Many persons, forces, influences, circumstances and accidents have contributed to the fortunate result. If we were asked to catalogue some of the principal factors, we should promptly mention President Roosevelt, Secretary Hay, the Hon. Marcus Alonzo Hanna, Senator Spooner's genius for doing the right thing at the right time, the monitory eruption of Momotombo, and last, but not least, the former chief engineer of the French work on the isthmus, M. Philippe Bunau-Varilla, who throughout the negotiations has typified the good sense and good faith of the Paris shareholders, and has likewise illustrated in his own person a sort of resourceful energy which some people are accustomed to regard as peculiarly American."

The public testimonies are often the true historical documents which establish the origin of great facts. They express openly what everybody knows at the time but soon afterwards forgets.

This oblivion is often taken advantage of by those who try fraudulently to appropriate to themselves the honour of great historical

results and thereby to falsify the knowledge of them, which is cherished by posterity.

Origin of Hanna's Conversion to the Panama Idea

The testimony of the *Sun* as to the men who were the essential factors of the reversal of opinion, shown by the votes of Congress, is valuable.

But what was the origin of the conversion of these men themselves ? The point is to-day historically registered, as regards the most important of them : Hanna.

Quite recently (April 1912), a book appeared written by an eminent American author, Herbert Croly. It is entitled *Marcus Alonzo Hanna*. It is a monument to the memory of the great Senator by one who lived with and near him.

America considers that Hanna was the author of the adoption of the Panama idea by the Congress of the United States, and this fact is itself the culminating point of the life of Hanna. It was extremely important that his biographer should state the determining force that acted on his mind to induce him to leave the Nicaragua party and to adopt the Panama one.

I have related in this volume the series of events as I saw them.

It is interesting to see how Hanna observed them himself, and what trace remained in the minds of his friends.

The two observations are in perfect accord. Here is what Mr. Croly writes on the subject :

"*Like other Americans he himself was first predisposed in favour of Nicaragua ;* but his mind was open and his predisposition did not prevent him from making a thorough study of the question, and reaching a proper conclusion" (p. 385). . . .

"Just when Senator Hanna became convinced the Government was making a grave mistake in case the Nicaragua route was adopted, I am not sure; but a visit which M. Philippe Bunau-Varilla made to the United States early in 1901 had something to do with it. M. Bunau-Varilla had been chief engineer in charge of the work undertaken by the old French company and was peculiarly qualified by his standing in his profession, and by his practical experience in the work of construction at Panama to pass an authoritative opinion on the comparative advantages of the two routes. He had been induced to come to the United States by a group of Cincinnati business men, whom he met by accident in Paris during the Exposition of 1900, and whom he had convinced of the superiority of Panama. The visit was made for the purpose of addressing various commercial associations in the United States on behalf of Panama, and wherever he went he left behind him a trail of converts. Among them was Colonel Myron T. Herrick, whose interest was so much aroused that he made a point of introducing Mr. Bunau-Varilla to Senator Hanna. *A series of interviews followed which had much to do with Mr. Hanna's decision to make a fight on behalf of Panama.*

"This decision had been reached by the Senator before the Canal Commission finally reported in favour of Panama."

This testimony is derived from recollections left in the mind and memory of Hanna's friends by the very opinion of the Senator himself. This remembrance is naturally somewhat discoloured by the eight years which separate 1904, the year of Hanna's death, and 1912, the year of the publication of his life's history. This history is, however, a precious document because it is perfectly disinterested and independent.

Touching Demonstration of Gratitude on the Part of George Morison

To these testimonies another one, also American, may be added. It is contemporary with the facts and some months anterior to the article of the *Sun*.

It emanates from the greatest of the American engineers of those days, George S. Morison.

In the course of a lecture given at the end of December 1902, before the Geographical Society of New York on the Panama Canal Mr. Morison thus expressed himself in speaking of Lake Bohio : [1]

"It will be a beautiful body of water, and in it will be an island of about 400 acres, which I have proposed to call the *Island of Bunau-Varilla*, in honour of the brilliant Frenchman who never despaired of the completion of the Panama Canal and to whose untiring energy we owe much."—*Bulletin of the Geographial Society*, February 1, 1903.

[1] Lake Bohio played in the project then contemplated the part played by Lake Gatun.

PART II

THE SECESSION OF PANAMA

CHAPTER XXIV

THE CONDEMNATION OF PANAMA BY BOGOTA

I HAVE already given a picture of the state of mind prevailing at Bogota, and shown what oscillations the pressure of contradictory ideas had communicated to the Colombian Government.

To understand them better it is necessary to grasp the extraordinary state of provincialism in which the immigrated race has been kept since the rupture of its relations with Spain.

Bogota is perched on the table-land of the Andes at an altitude of 8700 ft.

To within a very recent period the journey from the Atlantic coast to Bogota took twelve days. Nine days, and sometimes much more in times of drought, had to be spent on the magnificent but unhealthy Magdalena River, from Barranquilla, on the Atlantic, to Honda. From Honda to Bogota a three-days' mule track led the traveller to Bogota, the city of the Andes, slumbering in the eternal spring of the tropical highlands. Having severed all connections with the mother-country, the immigrated race has remained isolated in an admirable country which produces abundantly all the necessaries of life. The echoes of the outer world that arrived thither were all weakened by distance. The city exists without any real and immediate contact with the rest of the universe. It feels in no degree whatever those reciprocal pressures which the needs of the nations ordinarily establish in international relations and which are the determining factors in universal harmony.

All foreign questions appear at Bogota to be purely theoretical, abstract and remote.

They engender semi-philosophical discussions in which the spirit of controversy is sharpened without any regard for tangible realities and their material consequences.

The Panama Canal question was debated at Bogota as astronomers

now discuss the nature of the Canals of Mars, and as, in the Middle Ages, theologians debated the question of the Real Presence.

Upon these tendencies of the mind, which are, so to speak, extra-planetary, are grafted others deep rooted in human nature. A part of the population is animated by hopes of the future, while the other is dominated by the regret of the past.

In the case of the latter, as I have already said in the course of this book, regret of the past goes so far as to make them wish to place the ecclesiastical authority above the civil authority.

The extraordinary law of February 24, 1888, already quoted (p. 39) gives an idea of the length to which clerical intolerance can go, when clothed with supreme power.

It is easy to understand how, in Bogota, minds impregnated with such fanaticism as this were likely to regard an enterprise that had been killed in France by representatives of the same ideas. The task accomplished in France by MM. Drumont, Delahaye and Le Provost de Launay was to be prosecuted in Colombia by those in sympathy with their political aims.

It was before the tribunal of these various passions, deliberating under the veil of a secular ignorance of the real needs of humanity that the Panama question was summoned.

So long as the Canal appeared to be doomed, on account of the enthusiastic preference of the Americans for Nicaragua, its born enemies remained silent.

Some good citizens then tried to preserve from ruin this distant colony which is called the Isthmus of Panama.

The result of their effort was the mission entrusted to M. Martinez Silva by President Marroquin in 1901. The conciliatory attitude which this distinguished diplomat observed in Washington and his initiative in authorising the Company to open negotiations with the United States, were its secondary consequences.

But when in January 1902, after the events I have related, the American Technical Commission had recommended Panama, a reaction set in.

The Plenipotentiary, Martinez Silva, who was too favourable to the Canal, was recalled, and M. José Vicente Concha was sent to Washington. He was delegated by those who secretly hoped for the failure of the Canal, or at least the extortion of an exorbitant sum of money for it.

On the eve of the arrival of M. Concha, I sent a long cablegram to President Marroquin, which I have reproduced above.

It very likely strengthened this good citizen in his resistance to the excesses recommended by the enemies of the Canal. The pendulum swung back again. This was obvious at the moment of the crisis

when, in April 1902, the telegram I sent to the Isthmus, as well as my correspondence with M. Concha, led that diplomat to yield. This allowed the opening before the Senate of the debate out of which Panama issued victorious.

Still shuddering at the danger that he had at last perceived, conscious of the truth, he had at last realised, of what I had said and written to him, M. Concha thanked me for the part I had played in the great result obtained.

But now there was to be another swing of the pendulum in Bogota. The enemies of the Canal, confronted by the triumph of Panama, denounced just as loudly as mendaciously, the American bluff. They were repeating the ignominious legend propagated in France.

Therefore, when the work of drafting the final treaty began in the autumn of 1902, the attitude of M. Concha was again changed. It became unfavourable and crushingly hostile. Again, in November 1902, I had to interpose. I explained in transparent terms to President Marroquin that this policy was sure to lead to the loss of the Isthmus.

Once more the pendulum swung in the opposite direction. Concha was recalled and a person of second rank, Herran, Secretary of the Legation of Colombia, took his place. He yielded on all the questions of sovereignty, but at Bogota the Canal enemies were fighting up to the very last trench. They demanded a huge indemnity. My telegram of the end of December fixed the amount at $10,000,000 *plus* a rental of $250,000 annually. This solution dominated at Bogota and at Washington and finally on the 22nd of January, 1903, the Treaty was signed.

The long battle seemed to be ended. The Government of President Marroquin had affixed its signature to an act that had been long debated. I now thought I had at last ensured the realisation of the eternal undertaking which humanity had awaited for four long centuries.

President Marroquin had opened a generous fountain of wealth which was destined now to flow freely in this precious corner of the Colombian territory.

It was his Government's duty, therefore, to set everything in motion to fulfil the last formality, as the United States had already, on the 17th of March, 1903, done their part and ratified the Treaty.

The Colombian Congress was convened for the latter half of June.

Was it conceivable that it would not also, in its turn, serve public interest, and that it would not lay the last stone of the precious diplomatic foundation on which was to rise the glorious technical edifice of later years ?

It should be recalled here that the Government of President Marroquin was a dictatorial government, and that it had just gone

through a civil war, which during three years had caused bloodshed throughout the country.

Under such circumstances the elections in Colombia are what the party in power wishes to make them. For the most part they are but sham elections. A detachment of soldiers spontaneously take the place of the electors and pack the ballot box with votes.

For this reason it was infinitely probable that no new oscillation would intervene to disturb the balance that had at last been established. Moreover public opinion in Bogota had at first welcomed with favour the news of the final solution of this great question.

The Elections to the Bogota Congress: Evil Presages

In the course of May I was somewhat surprised to hear of the election of persons notoriously hostile to the Treaty.

Had President Marroquin changed his attitude ?

A fortuitous circumstance enlightened me as to the situation at Bogota.

On the 6th of June, 1903, I received from a distinguished personage, with whom I had had no previous relations, a letter, containing some very important information.

I made an appointment with my correspondent for the following Wednesday, 10th of June, and was told pretty much what follows :

" I have followed closely your noble and patriotic campaign for Panama. I believed it to be my duty, when I was quite recently at Bogota to serve your cause with President Marroquin.

" I found a man already convinced of all that I said, and also firmly devoted to the ratification of the Hay-Herran Treaty.

" But I must inform you, that while you can have every confidence in President Marroquin, a formidable opposition is being organised against the Treaty.

" I was surprised to see that the elections brought forth results so contrary to the views of President Marroquin. You know how elections are worked in Colombia. There must be some conspiracy which has baffled the intentions of the President.

" He is a perfectly honest man, but he is eighty years old, and at that age men have no longer the necessary activity for a difficult situation."

I then submitted to my distinguished interlocutor the text of the telegrams I had sent to the President.

" They explain the whole thing," said he. " The ideas formulated in your despatches have certainly inspired President Marroquin. He is imbued with their spirit. I find in them the very same expressions which he used in speaking to me."

I manifested my gratitude to my amiable informer for the service he had rendered to the cause of Panama which he had at heart.

When I left him I felt somewhat concerned as to the situation he had just depicted.

I CABLE TO MARROQUIN THAT REJECTION WILL BRING ABOUT SECESSION

Evidently the enemies of the Canal were preparing an aggressive campaign and they intended to act in the Congress.

I resolved, therefore, to send a new cablegram to President Marroquin to strengthen, if possible, his determination. After thinking the matter over, I decided to put him face to face with the possible secession of the Isthmus.

In order to prevent my cablegram from being stopped on the way, I requested a certificate of delivery to the recipient.

The cablegram was sent from Paris at noon on the 13th of June, 1903, which corresponded to the New York time of 6.50 a.m.

It is worth while mentioning this fact because on the following day the New York papers published articles announcing the probable secession.

On the 2nd of July following, I received the notification of delivery thus expressed :

" Paris from Bogota,
June 27, 4734—13—6.
Marroquin delivered."

Only five days had elapsed during the transmission of the certificate of delivery from Bogota to Paris, whereas fourteen days had intervened between the date of the despatch of my original telegram and the date of its delivery at Bogota.

Probably my telegram arrived much earlier. The Government very likely held over the receipt in order to forestall the suggestion of any connection with the President's message, which was read on the 20th of June, 1903, at the opening of Congress..

Here is the English text of the cablegram of June 13, 1903, which I wrote in Spanish :

" *Via Galveston.*

" MARROQUIN,
" *President Republic, Bogota.*

" Beg to submit respectfully following :

" (1) One must admit as a fundamental principle the only party that can now build the Panama Canal is the United States and that neither European Governments nor private financiers would dare to fight either

against the Monroe Doctrine or American Treasury for building Panama Canal, in case Americans return to Nicaragua, if Congress (Colombian) does not ratify Treaty.

" (2) It results from this evident principle that failure of ratification only opens two ways :

" Either construction of Nicaragua Canal and absolute loss to Colombia of the incalculable advantages resulting from construction on her territory of the great artery of universal commerce, or, construction of Panama Canal after secession and declaration of independence of the Isthmus of Panama under protection of the United States as has happened with Cuba.

" (3) I hope that your high patriotic policy will save your country from the two precipices, where would perish either the prosperity or the integrity of Colombia, and whither would lead the advice of blinded people or of evildoers who would wish to reject Treaty—or to modify it, which would amount to the same thing.

" PHILIPPE BUNAU-VARILLA."

On Saturday the 27th of June, the Paris edition of the *New York Herald* gave the first news of the opening of the Bogota Congress on the 20th of June, 1903.

The conspiracy was obvious : the President of the Senate was no other than General Joaquin Velez. He was the same man who had signed, with the Holy See, the Concordat which had led to the law allowing the dissolution by a new religious marriage of any former civil marriage contracted with another person.

He was evidently the most fanatical supporter of the policy defended in Paris by MM. Drumont and Delahaye. On both sides of the ocean the same party wished one and the same thing : the complete destruction of the Panama enterprise.

It had been killed in France in the name of Virtue. Its resurrection was to be prevented at Bogota in the name of the Honour of the Country.

The same sacred symbols are used in every land to conceal the worst schemes.

Events were strictly to justify my forebodings.

The campaign, of which the election of General Joaquin Velez to the Presidency of the Senate was the culminating point, had evidently exhausted all the energy of President Marroquin. It had paralysed in him the will power necessary for obtaining from the electors the choice of representatives favourable to the Treaty.

Others had exercised in a contrary direction the necessary pressure to ensure electoral returns satisfactory to them as conspirators against the Canal.

The abstention of any pressure from the executive power had not increased the sincerity of the elections. The results had been warped against and not in favour of the public interest.

That was the only difference.

MARROQUIN DEFENDS THE TREATY AFTER THE FASHION OF PONTIUS PILATE

Surrounded by this hostile atmosphere President Marroquin did not dare to do his whole duty in the exercise of his authority.

Instead of saying: "The superior interests of the country require the ratification, I demand it, I *will* have it," the President acted as did Pontius Pilate. He confined himself to exposing the situation, to be sure, with sincerity, but he did not throw into the balance the weight of a supreme and energetic appeal to the true patriotism of Congress. Here is the substance of the Presidential message:

"My Government is faced with this dilemma: We must either allow our sovereign rights to suffer and renounce certain pecuniary advantages to which, as many opine, we have a right, or we must rigorously stand up for our sovereign rights and claim peremptorily the pecuniary indemnification to which we have a right to consider ourselves entitled. In the first case—that is, should we consent to the curtailment of our sovereignty, and not aspire to the full indemnity, should the Canal be opened through Panama—the just wishes of the inhabitants of that department and of all Colombians will be satisfied; but the Government lays itself open to being charged in the future with not having duly defended our sovereignty, and of having sacrificed the interests of the nation. In the second case should the Canal not be opened through Panama it will be laid to the charge of the Government that it did not allow Colombia to benefit by this undertaking which is regarded as the foundation of our future greatness. I have already expressed my desire that the Interoceanic Canal should be opened through our territory. I think that, even at the cost of making sacrifices, we should put no obstacle in the way of so great an undertaking, for it means an enormous material improvement for our country, and, should the Canal once be opened by the people of the United States, our relations with that people would be drawn closer. *The result would be an incalculable gain to our industry, our commerce, and our wealth.* Happily for me, the immense responsibility of coming to a decision falls to Congress. . . .

"I have thrown upon you all the responsibility that the decision of this negotiation brings. *It is not my intention to allow my opinion to weigh in the matter.* Whenever I have transmitted instructions to our representatives in Washington, I have directed them formally to express my resolution to submit the study and decision of this most serious affair, in its general sense and its details, to the supreme Congress.

"After many years, during which that matter has been dealt with in a vague manner and without any precise conditions, to-day it is presented to us in such a light that the discussion thereof cannot but lead to practical and positive results.

"Indeed it has been one of our indisputable diplomatic triumphs that the Senate and Executive of the United States, in spite of the strong efforts made to the contrary, declared the superiority of the Colombian route."

Such was the timid expression of his views given publicly by President Marroquin.

It betrays the same terrorised state of mind which had so long

paralysed the energy of the French Government. In our country it had prevented all action on the part of the Government to protect the great enterprise against the desperate assaults of those who were waving the flag of a mendacious virtue. It prevented, at Bogota, all vigorous action for the safeguard of the great interests of the Colombian nation against the fiery declamations of a fictitious patriotism.

After the feeble and colourless speech of President Marroquin in defence of the Canal one may guess what was the passion displayed by its adversaries in trying to destroy it.

Violent Demonstrations against the Hay-Herran Treaty

The expression of the sentiments of the adversaries of the Treaty may be found in the *Nuevo Tiempo* of Bogota on October 16, 1903. General Joaquin Velez condenses his opinion thus :

" This Treaty is a violation of our fundamental institutions, a violation of our sovereignty . . . . I desire, as do many of my compatriots, that *whatever Canal may be built across the Isthmus be for all eternity* in the rigorous acceptation of the word, a *Colombian Canal. If it cannot be a Colombian Canal, well, it will not be built.*"

So much the worse for humanity ; so much the worse for the principal artery of its activity ; so much the worse for the heroic and gigantic effort of human genius. As Colombia is financially and technically incapable of accomplishing this work, well, it will not be realised !

" Humanity may wait, as, on the high Andine table-lands of Bogota, we have no need of it." This is what General Velez had the audacity to declare.

Never was a more incredible challenge to reason and to truth expressed with more brazen presumption.

The people, who, in the United States, violently attacked the acts of her Government after the Revolution of Panama, and who still attack it, may with advantage meditate upon the words of General Velez. They give the clearest expression of the policy which ruled Bogota from the day of the opening of Congress on the 20th of June, 1903.

Therefore nobody needs be astonished to learn that the Senate unanimously rejected the Hay-Herran Convention on the 12th of August following.

But in this assembly of twenty-seven members (three Senators of each of the nine Colombian Departments) one noble voice arose in solitary protest. One Senator alone defended the Treaty, Senator Obaldia of Panama.

A Single Senator, Obaldia, defends the Treaty

The voting having taken place during the night, in his absence, José Domingo Obaldia, Senator of the Department of Panama, had the courage to publish, on the 16th of August, a solemn and prophetic declaration. It was entitled : " The Future will answer."

Senator Obaldia first explains how he was obliged to leave the session owing to an indisposition, and because he thought the ballot would be postponed until the following day.

" It is not," he adds, " because this postponement would have contributed anything new in favour of this *corpse, which it was necessary to embalm*, as some Senators wildly expressed it. I understand very well that any effort would have been fruitless to bring to a successful issue the Hay-Herran Treaty, in spite of all the demonstrations of its utility. The exquisite sensitiveness of the patriots was too deeply hurt, when they saw trampled on, in the Canal zone, a little rag of sovereignty. These patriots were the very same who earlier applauded this appalling catastrophe and lent their hands to its accomplishment. Yes, the nefarious politics of this town has been the principal factor in crushing this work of redemption, which guaranteed peace, as well as the honest work that generates morality.

" I was ill, but I arrived at the session long before the roll call with the sole aim of recording my vote against the nocturnal burial of the Treaty, the platform of salvation for ruined and discredited Colombia, the smiling hope of welfare and prosperity for Panama, my country. . . .

" Never shall I regret having absolutely respected the clear opinion of the majority of the inhabitants of the Isthmus, a majority based not only on the quantity but also on the high moral quality of its elements.

" Those who respect legitimate property, the men who have established honest homes and founded upright families, those who have contributed by their active energy to the progress of the Isthmus under its many aspects, the friends of peace who enjoy the effort of work—all these had been, with rare exceptions, the ardent supporters of the Canal, and I shall forever remain with them."

Such was the noble and dignified statement which echoed President Marroquin's words; but the echo was a solitary one !

Perez y Soto declares that Herran deserves to be hanged

We have seen how General Joaquin Velez, the first President elected by the Colombian Senate, in the session of 1903, gladly condemned to death the great international enterprise.

Let us note another manifestation of this party, of whom Velez was the chief, the party who wished to kill the Canal in the name of the higher interests of the country, who dominated and dictated the votes of the Colombian Congress. Let us read carefully the words printed on the 11th of May 1903 at Bogota in the *Correa Nacional* above the signature of Senator Perez y Soto.

Would they not appear to have been written by M. Drumont, when he was fanatically denouncing M. de Lesseps in 1890 in *The Last Battle?* "This scoundrel walks about as 'a triumphing hero'!" Do they not seem to be extracted from the speeches of M. Delahaye or M. le Provost de Launay, denouncing imaginary frauds and thereby inducing their Republican adversaries to cast cowardly votes which gave an appearance of reality to purely fanciful crimes. Here is a sample of what Perez y Soto says of the honest and loyal Dr. Herran:

"The Hay-Herran Treaty will be rejected unanimously by both Houses. That is what I hope, because there will not be a single representative of the Nation who will listen to the voices of those *who have sold themselves* and who have been impudent enough to recommend this shameful contract. In spite of everything the ignominy which Herran has cast upon Colombia's good name will never be obliterated.

"*The gallows would be a very light penalty for such a criminal.*"

Such epileptic attacks as these constituted the reward of the modest and honourable career of Dr. Herran, for twenty years the faithful secretary of the Legation of Colombia at Washington.

The Panama Revolution avenges the Murdered Project of the Canal

The same method of mud-throwing had, in Bogota in 1903, the same result as formerly in Paris.

The same proceedings employed by men serving the same ideas had the same consequences.

The Panama Isthmus was lost to Colombia as the Panama Canal had been lost to France.

Had I not kept a vigilant guard the Panama Canal would have been also lost to humanity, and the terrible as well as mendacious legend of infamy would have become an historical truth, for the shame of France.

Truth triumphs now! Yesterday America honoured the work of French genius by giving the name of De Lesseps to one of the forts which guard the Canal. To-morrow the interoceanic passage will be inaugurated, as an imperishable monument erected to the greatness and clear-sightedness of combined French and American genius.

M. Drumont will then be at liberty to write another article similar to that in which he tried to destroy the effect of my supreme appeal to French energy in 1901. He will be able to entitle that one also: *Panama Again.*

"This phantom," which M. Drumont in 1901 said I had "dragged on from the wings," is living and powerful. To-morrow it will begin to serve humanity.

"This corpse that it was necessary to embalm," as the Colombian Senator expressed it in 1903, I have snatched from the grave, thanks to the Revolution of Panama. Its name to-day is the "Hay-Bunau-Varilla Treaty," and this Revolution, which caused the glorious work of the junction of the oceans to emerge from the abyss, I brought about in order to avenge Truth and to slay Mendacity.

But the history of Colombia's attitude to the Panama question is not limited to the rejection of the Hay-Herran Treaty by the Colombian Senate on the 12th of August, 1903.

This date marks the triumph of the extreme and violent party represented by the President of the Senate, Joaquin Velez. The party of good citizens, of the men sincerely inspired by a sense of duty towards their country, the party which had as its timid spokesman President Marroquin, had disappeared from the political chessboard of Bogota. Only one man had remained standing after the general break-up of this party. He was Senator Obaldia. He stood alone; and his generous voice had not received the slightest response.

Three Immoral Proposals at Bogota—the First: No Canal

Ever since the day when I succeeded in liberating the Isthmus of Panama from Colombian tyranny, hypocritical and exasperating lamentations have resounded in the United States and in France. In the latter country those whom the Revolution put face to face with their resurrected victim have sworn that Colombia had always been eager and willing to protect the great French interest. In the United States those whom the Revolution placed face to face with the irremediable and final condemnation of Nicaragua, have shouted that President Roosevelt violated the law of nations. They added that the rapid recognition of the new Republic was a violation of anterior treaties, and that the conduct of Colombia had been above all criticism.

Bitter tears were shed in both countries over the misfortunes of Colombia. Her policy was depicted as having been inspired by the most distinterested considerations.

The parliamentary documents of Bogota testify that such assertions were completely fictitious.

Throughout the session of Congress no proposition referring to Panama was brought before the Colombian Senate which was not stamped with the most flagrant immorality.

All the motions made, and the records of which have been kept, were dictated :

Either by desire to abuse the rights of sovereignty in the hope of making it impossible to realise the junction of the Oceans;

Or by an intention to levy veritable blackmail on the French share and bond holders by despoiling them of a part of the reduced indemnity which they were saving from the financial disaster;

Or by an intention to drive the French Company to forfeit all its rights in order to confiscate its property.

The ballot of August 12, 1903, rejecting the Hay-Herran Treaty, if taken in connection with the interpretation given to this ballot by M. Perez y Soto before the vote and by General Joaquin Velez after the vote, demonstrates my first point.

The Second Immoral Proposal : Extortion of One-fourth

It is easy to establish the existence of the second in a proposition made by General Nel Ospina, Vice-President of the Senate, conjointly with the Senators Manuel Maria Rodriguez and Luis F. Campo. On August 29, 1903, they presented a motion aiming at the determination of the explicit conditions under which the Colombian Government would be authorised to sign a new treaty with the United States.

According to this motion, a sum of $20,000,000 instead of $10,000,000 was to be demanded from the United States. The annual rental was to be raised from $250,000 to $400,000 until the year 1967, and was then to be increased every century by twenty-five per cent.

Had the project been confined to fixing new financial conditions for the United States the limits of the moral right of Colombia would not have been overstepped. This motion might have been reprehensible on the ground of being unsound or unacceptable by the United States, of not being in harmony with the duties of Colombia towards the world as the possessor of the land necessary for universal service. It was impolitic, it was not immoral. But there was in the motion something else which can only be considered as gross political immorality.

I quote the paragraph which will make the scales fall from the eyes of those who have hitherto thought, in good faith, that the Colombians were constantly inspired by respect for French interests. Here it is :

" The Government of Colombia," said the Nel Ospina, Rodriguez, and Campo project, " will authorise the New Panama Company to transfer its rights and obligations to a foreign Government, on the condition that the sum of $10,000,000 be paid to Colombia."

Thoroughly to understand the heinousness of this attempted

extortion it is necessary to recall the facts at the origin of the negotiations and the principles then mutually accepted.

The negotiations were begun in 1901 on the initiative of the Minister of Colombia at Washington, M. Carlos Martinez Silva. On the 29th of April, 1901, he asked the president of the New Company, in writing, on what conditions the New Company *would be disposed to cede its franchise to the Government of the United States, of course with the necessary authorisation from the Colombian Government.*

The president of the Company answered on May 1 following that the Company was disposed to transfer her rights. He further stated : *All the conditions of this transfer will be fixed, of course, for the Company, outside of and independently of the particular arrangements which may be made between the Governments of Colombia and the United States.*

M. Martinez Silva, having thus first asked for and then received the conditions of the Company, gave an implicit and formal acquiescence to them, two days later, on May 3, 1901. He transmitted these letters to the president of the Isthmian Canal Commission, Admiral Walker, and in the message which accompanied them the Minister declared himself ready to " answer, on behalf of the Colombian Government, the questions that the Commission may be pleased to present relative to the manner of bringing about an understanding between the two Governments for the construction of the Panama Canal." And the Minister added :

I trust that the steps that have been taken will render manifest to the Commission the good-will that animates both the Colombian Government and the Panama Canal Company to remove obstacles in the pending negotiations, and to dissipate any doubts that may have been entertained respecting their attitude towards the Government of the United States.

If at the base of any negotiation a principle was ever clearly expressed, such was the case in this affair.

Never during the course of the long debates which followed at Washington, was the slightest encroachment upon that principle permitted. The independence of the negotiations which were taking place between the Government of the United States and the Canal Company on the one hand, and Colombia on the other, was always considered as being absolute.

How after that are we to qualify the nature of the sentiments that prompted the attempt to extort from the Company one-fourth of the paltry sum which it was to obtain from the sale of its property ?

And this moral violence was exercised when a short time only remained before the expiration of the concession when the negotiations were already concluded, and when the price of the sale to America had been fixed on the basis of the arrangement guaranteed by the honour of Colombia !

Yet this was a proposition made by those at Bogota who were most favourably disposed to the Canal.

I had revealed the real situation to General Nel Ospina in January 1903. I had had, it may be remembered, the opportunity of meeting him on board the steamer which brought me back to America in January 1903, and I had been able to remove from his mind the foolish legend of an American " bluff " as regards the Nicaragua question.

He had promised to distribute profusely in Colombia an article wherein I demonstrated that this idea was simply absurd. His open and supple mind had clearly seized all the difficulties, which I had had to surmount in order to place Panama in the front rank, in the face of the pro-Nicaraguan fanaticism.

Nevertheless he had now signed this proposition, which was virtually tantamount to the exercise of moral violence in order criminally to seize a neighbour's property. As he was perhaps the best informed man in Bogota his proposition may be considered as being much below the minimum demanded by the general spirit that prevailed there.

The demonstration of this fact may be found in the report which accompanied this improbable Bill. Its signatories show what opposition they foresaw on account of the moderate satisfaction it gave to unchained appetites.

" We must face the problem with courage and loyalty," they say, " because the problem is ours; and also is one which concerns the civilised world. . ."

The conclusion is as follows :

" Civic courage requires in cases such as this the frank expression of an honest conviction."

The state of public mind was of such a nature, therefore, that those who had undertaken the task of curbing the appetites were obliged to invoke civic courage and universal interest in order to justify what they dubbed moderation, but what was in reality a scandalous enormity.

They demanded only the fourth of a property to which they had no more right than the Emperor of China. They demanded twice the amount agreed upon with America.

If civic courage was necessary to be as moderate as that, it is because the others wanted more, much more.

Three Attempts at Extortion preceding that of Nel Ospina

The attempts made by Colombia to exact unduly from the French Company a part of the purchase price of their property was not formulated for the first time on August 29, 1903, in the Nel Ospina motion.

In a letter of April 28, 1903, to the American Minister in Bogota, the Secretary of State, Mr. John Hay, made allusion to similar attempts by the Colombian Government: for example, that made on November, 11, 1902, by the Colombian Minister to Washington, M. Concha.

During the discussion of the Treaty he had tried to insert an article stipulating that the French company would have to open negotiations with Colombia for the removal of the prohibition of sale. The American Secretary of State had explicitly vetoed such an article, which would have abandoned the Company defenceless to Colombian greed. M. Concha was obliged to withdraw from his position.

During the period of the negotiations which ended on January 22, 1903, in the Hay-Herran Treaty, the first clause of which granted explicit power to the Company to sell its property, a fresh effort was made by Colombia in the same direction.

This time it was no longer the Minister Plenipotentiary to Washington, it was the Colombian Government itself, which tried to inveigle the Company into a situation in which it would have had to submit to extortion.

The Minister of Finance at Bogota notified the Company in Paris, by letter dated December 24, 1902, that they must enter into direct negotiations in order to obtain the right of sale.

The American Secretary of State intervened as soon as he heard of this notification. On April 7, 1903, he cabled to the representative of the United States at Bogota that he must formally oppose such a claim. The same point was made the object of his letter of April 28, 1903. He recalls in a spirit of straightforward and generous loyalty that the principle of the independence of the negotiations had been formally admitted at the outset by the Colombian Plenipotentiary.

He mentions the effort made by M. Concha in November, 1902, to twist about and negative this mutual understanding. He gives explicit instructions to the American Minister at Bogota in order to prevent the Company from being trapped in the snare of negotiations the aim of which was obvious.

The Colombian Government having failed in its attempt remained quiet and the Company was protected, thanks to Mr. Hay's energetic interference.

But on July 9, 1903—some nineteen days, that is, before the opening of the Colombian Congress—the manœuvre began again. The American Minister at Bogota wired to the Secretary of State at Washington:

"*Bogota, July* 9 (*received July* 12).

"Confidential . . . . requests me to tell you that he does not think the Treaty can be ratified without two amendments: To Article 1 stipulating *payment of ten millions by Canal Company for the right to transfer;*

to Article 25, increasing payment to fifteen millions,[1] and says that the Treaty can be ratified at once with these amendments. He asks your views confidentially.—BEAUPRÉ."

What was the name of the man important enough to justify the American Minister in cabling his opinion? It was very probably General Reyes, who afterwards became President of Colombia. He certainly was, as was also General Nel Ospina, of the opinion that it was necessary to make a treaty with the United States. These two broad-minded men were, more than any others, aware of the duties of Colombia and of her true interests.

If not General Reyes, at least General Nel Ospina, a few days before devising his Bill with the view of coercing the Company to pay what it did not owe, had received a solemn warning.

THIRD AND LAST WARNING AS TO DANGER OF SECESSION

I had, twelve days before this Bill was proposed, made a third and last appeal to the patriotism and clear-sightedness of the chiefs of the Colombian nation.

I had selected precisely General Nel Ospina, then Vice-President of the Colombian Senate, as the best channel to receive and distribute such a warning.

On August 17, 1903, at 9.30, I sent from Paris the following cablegram:

"NEL OSPINA,
"*Senator, Bogota.*

"I appeal to your scientific spirit to induce from contemporary history, the *terrible and immediate consequences for Colombia of the rejection or amendment of the Panama Treaty.*

"*This would be equivalent to stabbing your country to the heart, destroying its prosperity and its interests,* whereas ratification insures a glorious future."

"P. BUNAU-VARILLA."

General Nel Ospina, therefore, when he signed the Bill had all possible elements of information. I repeat that if he resorted to this minor political immorality it was because by civic courage he tried to avoid a major immorality: the confiscation of the whole Panama property by a cynical and perfidious abuse of the contracts.

THE THIRD IMMORAL PROPOSAL: COMPLETE CONFISCATION

The majority of the Senate wanted more than the fourth, it wanted the whole of the French property.

[1] Instead of ten millions by the United States to Colombia as agreed in the Hay-Herran Treaty.

How could this aim be attained ?

It was very simple.

The Canal Concession was to expire on October 31, 1904. Well, it only sufficed to drag along until that date. As the Canal would not be opened by then all the Company's property would fall into the hands of Colombia by the law of 1878 granting the concession.

The argument was logical and simple. There was, however, a slight objection. The term fixed on October 31, 1904, by the law in force had been prorogued for six years by a legislative decree of the Dictatorial Government.

For this favour the Company had paid one million dollars in cash.

As this objection had some value the politicians at Bogota discovered a system which entirely satisfied them.

In their eyes it was sufficient to state that the legislative decree signed during the dictatorial period could be declared null and void if they liked. As that period was ended and legal order re-established, they asserted that Congress had full authority to annul the legislative decree as pleased it.

A special commission was formed in the Senate to define the conditions under which a new treaty might be made with the United States. On October 14, 1903, the majority of this commission, composed of MM. Guillermo Calderon, J. M. Rivas Groot, and Luis Maria Calvo, presented a report from which I must give some extracts.

It is not an exaggeration to say that the spirit of this report is truly amazing. I submit this report to the admiration of those who cannot be consoled for the undeserved misfortunes of Colombia. They are constantly praising the sincerity of her sentiments for French interests at Panama. They will finally be able to see on what basis their admiration rests. Here are some passages of the report :

" There remains one point to be examined, a point which has so often been discussed in the press, a point which now that the matter is under discussion must be defined : *Is the extension granted by a legislative decree valid or not ?*

" In the first case, that is if it is to be considered valid, seven years must elapse before the extension expires and therefore *any law concerning authorisation to make a treaty seems premature,* as three sessions might still be held in which Congress would be able to examine the matter, and to legislate concerning it, with better data and evidence than has the present Congress.

" ' And if the extension be not valid the aspect of the question changes entirely and the basis of discussion will be quite different.'

" By the 31st of October of next year, that is to say when the next Congress shall have met in ordinary session, the concession will have expired and every privilege with it.

" *In that case the Republic will become possessor and owner, without any need of a previous judicial decision and without any indemnity, of the Canal*

itself and of the adjuncts that belong to it, according to the contracts of 1878 and 1900.

"When that time arrives, the Republic without impediment, will be able to contract, and will be in a clearer, more definite and more advantageous position both legally and materially. The authorisations (to make a treaty) which would be then given by the next Congress would be very different from those that can be given by the present one.

"It will be seen, therefore, that it is the *duty of Congress to decide, as a previous question that cannot be shirked, what was the validity of the extension granted in* 1900.

"*We venture nothing on the subject, and we respect, in advance, the decision of Congress in so delicate a matter.*

"*Supposing that it does not ratify said extension it will be well to observe now that it would be necessary to include in the budget the appropriation that would be necessary to repay to the Company the sum of* $1,000,000 with *interest.*

The Commission concluded:

"*That the discussion of the draft of a law by which. . . . authority is granted to the Government to negotiate for the construction of an Interoceanic Canal be indefinitely postponed.*"

The theory of confiscation through stagnation is developed hereabove with an audacity and unsurpassed cynicism. It can be summed up in the following terms:

"Your Government in a dictatorial period made a contract. Well, declare it null and void and you are in full possession of the French property."

"It is exceedingly simple. Do not make any move. Merely placing the French Company in such uncertainty as to its rights kills it in advance. It cannot think of borrowing money, since Colombia declares herself free to obliterate her signature whenever agreeable to her, and to declare that the concession expires in less than thirteen months."

"Therefore the Company is as good as dead already. We have only to await its last breath."

Futile Efforts to arouse French Public Opinion

A series of articles was published in 1904 in a French paper, *La Patrie*,[1] over the signatures of eminent Colombians. Their aim was to convince public opinion of the noble disinterestedness of Colombia as regards French interests. *Le Matin*, on September 18, 1904, printed the extract of the report which is reproduced above. The result was to throw a bright light on the truthfulness of the pleadings of the advocates of Colombia who had asserted that the validity of the concession's extension had never been doubted in Bogota.

[1] It is proper to mention that *La Patrie* declined any personal responsibility for these articles.

Seriously embarrassed by this crushing document, the author of these articles answered that the opinion of a commission is not that of the Senate.

This was true in a general sense. But if the Senate adopted the course which its commission recommended one would be forced to believe that it shared the opinion expressed notwithstanding all assertions to the contrary.

What had the commission recommended on October 14, 1903 ?

Not to give any authorisation to the Government for negotiating the Canal Treaty.

What did the Senate do ? It gave no authorisation to the Government for negotiating, and adjourned at the end of the same month of October.

Therefore it appropriated to itself the conclusions of the commission.

But it may be said : " Granted that it appropriated to itself the conclusions, the Senate did not nevertheless endorse the motives."

This subtle distinction vanishes if confronted by facts.

How would the Senate have acted if it had not absorbed this odious idea of a confiscation which was obtainable, thanks to the tacitly expected lapse of the concession, while the validity of the extension was being declared doubtful. The Senate would have done what any honest man, what any body of honest men, would have done, if placed face to face with a perfidious and dishonourable proposal. They would have rejected any such plan by an explicit and formal vote. They would have declared that no sophisticated legal theory could lead the Colombian Senate to confiscate its neighbour's goods without a clear and certain right.

This is the only act which would warrant the assertion to-day that the Colombian Senate never doubted the validity of the extensions. Did the Senate accomplish this act ? Not at all !

A commission told it in substance on October 14, 1903 : " You have to follow one of two courses, either to declare the validity of the extension, or to wait a year and a few days in order to claim that the extension is illegal, and then you will be the owner of all the property of the French Company, if you like ! "

What did the Colombian Senate do ?

It did not declare the extension to be valid, and it closed the session sixteen days afterwards without any expression of opinion; therefore, it decided to take the second of the two courses. The Colombian Senate began, therefore, what I called the period of expectation, during which the New Panama Company was bound to come to disaster as contributed by her natural heir, the Colombian Government.

This odious and sordid policy was to meet its just punishment : the Revolution of Panama.

WHERE AND AGAINST WHOM WERE MADE "SCANDALOUS INTRIGUES"?

M. Judet printed in the *Éclair* on the 9th of June, 1906:

"The history is not yet written of the scandalous intrigues which preceded the sham insurrection of Panama, the dismemberment of Colombia, and the formation of a Providential Republic by Mr. Roosevelt."

To-day, at all events, the history of the scandalous intrigues which Bogota had witnessed, and which were directed against the interests of France and of the World, is finally written. Their aim was:

Either the total destruction of the enterprise of Panama with a view to completing the criminal work originated in France as part of a political conspiracy;

Or the confiscation of the whole French undertaking by denying the validity of the Company's title of concession up to the very moment of its ruin or of its forfeiture;

Or, eventually, the extortion of one-fourth of the amount of the sale of the property to the United States.

And the partisans of this third system, which was just as immoral but less brutal then the two first, were so few in number that their voices were scarcely audible! Their chiefs, the best-disposed among the public men of Colombia, were General Reyes and General Nel Ospina, who must have shuddered at the immorality of a proposal which their civic courage prompted them to make, in order to avoid an immorality even more scandalous.

Never was there a more obvious or striking example on the part of a civilised nation of a policy conceived and carried out for the violation of general interests and spoliation of private interests.

ANY ACTION WARRANTED TO SECURE THE TRIUMPH OF THE TRUTH

Any means, even violence, was henceforth legitimate to prevent the catastrophe which was inevitably to result from the Colombian policy; the final destruction of the precious structure erected by the sacrifice of the blood and the gold of France.

In writing these lines I am bound to say how painful it was for me to resort to such extreme measures.

I had proved, by my constant intervention, my indefatigable solicitude for the true interests of Colombia. My telegrams indicating the one right path to President Marroquin, at each of the critical periods of the negotiation, are unanswerable witnesses thereto. My three solemn warnings addressed either to him or to General Nel Ospina, which outlined in advance the history of the secession of Panama attest the sincerity and loyalty of my friendship. I always had the conviction, which I still cherish, that President Marroquin,

General Reyes and General Nel Ospina were the faithful servants of their country. They were wise men living among a people crazed by the frenzied teachings of those who were seeking the total destruction of the work of Panama. While the measures proposed by General Nel Ospina must be severely condemned, it does not seem just to extend the condemnation to the motives behind them.

It is to the apostles of hysteria that the merciless judgment of history must be reserved. It is upon them that the responsibility of the loss of the province of Panama must fall, as it is upon their co-workers in France, that must weigh the responsibility of the loss for the French of the enterprise of Panama.

But this book is not written to take a revenge on men but to destroy false ideas.

May this book reveal to the Colombians who their veritable friends were, and who their perfidious counsellors.

May they also learn from it this lesson : that no member of the human community can abuse his individual rights without thereby violating rights that are superior to his.

Colombia had not the right to possess the American Isthmus without devoting it to the service of Humanity, because Humanity had a superior and inherent claim on this precious territory.

Colombia was deceived by those who intoxicated her by fanatical declamations as to her sovereign rights. They thus made her forget the obligations incumbent upon her, as well as towards those who had begun the great work for the service of civilisation, as towards those who sought to complete it with the same end in view.

Let Colombia take her stand on Truth and Justice and from this vantage point she will see things in a fresh light.

This thought has been ever present in my mind while writing the history of Panama, where the battle of human passions waged during one-third of a century.

In tracing the Colombian episode it is my earnest desire not so much to reveal errors in order to satisfy personal rancour, as by such revelations to limit their consequences and to prevent their return.

Colombia put herself outside the pale of civilised nations when she placed confidence in those who said : " The Canal will be strictly Colombian or it will not exist."

Let her resume her honoured place in the human family and finally distinguish Error from Truth.

Let her refined and intellectual race repudiate the sixteenth-century armature under which it is attempted to imprison the free expansion of her generous blood. She will then play the great part which her marvellous natural resources reserve for her.

CHAPTER XXV

THE BLIND-ALLEY AND ITS TWO SECRET OUTLETS

I HAVE concluded the account of events at Bogota. They show at what a rapid pace the enterprise of Panama was advancing towards the abyss.

Only some unforeseen event, some sudden convulsion, could save the great undertaking from final disaster.

It remains for me to relate how I was fortunate enough to determine an event of this nature and thus to checkmate Destiny by the creation of a new Republic, the " Republic of Panama."

BOGOTAN POLICY LEADS TO THE TRIUMPH OF NICARAGUA.

When the news of the rejection of the Hay-Herran Treaty, on the 12th of August, 1903, became known in Paris, I considered the situation desperate. For the first time, since the beginning of my one-sided correspondence with President Marroquin, events had shown that my suggestions were no longer carried out.

For the satisfaction of my conscience I sent, on the 17th of August, 1903, as I have already said, a cablegram to General Nel Ospina, then Vice-President of the Senate.

It was obvious that a political coalition had paralysed the patriotic intentions of President Marroquin, and that he was incapable of forcing the treaty through.

As, on the other hand, the United States had gone to the extreme possible limit of concession in accepting and ratifying the Hay-Herran treaty, no compromise could be expected on their part.

The United States Presidential elections were to take place in the following year. The failure of the Colombian Treaty meant the final adoption of Nicaragua. It was, indeed, impossible that President Roosevelt should become a candidate for the Presidency without having previously given a definite solution for this question. The predilection of the American nation for Nicaragua only needed the first opportunity to show itself afresh, more vigorously than ever. No more popular measure could be adopted. The Spooner Law, moreover,

made such adoption compulsory in case of the failure of the treaty with Colombia.

The peril was immense, and an entirely new solution could alone change the course of events. The future seemed to me to be enclosed within inviolable prison walls.

I find in the Treaty of 1846 a Possible Way Out

While I was engaged in analysing all conceivable eventualities I was led to think that the Treaty of 1846 might perhaps furnish a means of escape.

This treaty, concluded between the United States and New Granada, the former name of Colombia, gave to the citizens or merchandise of the United States the right to pass freely through the Isthmus. In return for this right the treaty imposed two obligations on the United States. The first was to maintain neutrality and free transit between the oceans; the second was to guarantee the rights of sovereignty of New Granada over the Isthmus.

I give the two paragraphs dealing with the essential points in the Treaty of 1846:

"The Government of New Granada guarantees to the Government of the United States that the right of way or transit across the Isthmus of Panama upon any modes of communication that now exist or that may be, hereafter, constructed, shall be open and free to the Government and citizens of the United States.

. . . . . .

"In order to secure to themselves the tranquil and constant enjoyment of these advantages, and as an especial compensation for the said advantages

. . . . . .

the United States guarantees positively and efficaciously to New Granada, by the present stipulation the perfect neutrality of the before-mentioned Isthmus, with the view that the free transit from the one to the other sea may not be interrupted or embarrassed in any future time while this Treaty exists; and, in consequence, the United States also guarantees in the same manner, the rights of sovereignty and property which New Granada has and possesses over the said territory."

Could not the concession of the "right of way" be considered as implying that Colombia must either make or allow the works necessary for such right of way to be made?

It seemed to me that in virtue of the old French legal saw, *Donner et retenir ne vaut*, to ask the question was to answer it.

The Second Secret Way out: Secession

There was, moreover, another way out to which I had three times in succession drawn Colombia's attention: the secession of the Isthmus.

If that were to take place the Treaty of 1846 would follow the new sovereignty, and be automatically transmitted to the new sovereign of the territory which it concerned. The United States, on the other hand, could not be embarrassed by the article I have just quoted. The guarantee of sovereignty which it gave had effect only against a foreign power, and was not applicable to the possible case of a partition of the country into two distinct political groups.

I had thus determined the two issues which could save the Panama conception from the annihilation to which the policy of Bogota condemned it. Nothing remained to be done but to inspire ideas in the minds of those who controlled the situation, the American and Colombian Governments.

A telegram from New York, though somewhat obscure, convinced me that the idea which had occurred to me of using the text of the Treaty of1846 to coerce Colombia had simultaneously been entertained in America.

The Prophetic Article of "Le Matin"

I did not hesitate to request *Le Matin* to acquaint the public with the real state of this confused question. At the very same moment despatches arrived announcing the first movements towards a revolution in Panama.

On the 2nd of September, 1903, *Le Matin* published the following article, which was to be the last and supreme warning, a public warning this time, that Colombia was to receive. It met the same fate as the preceding ones. It could not change the destiny towards which the fatal policy of Bogota was irremediably conducting a blind and heedless country.

"THE QUESTION OF PANAMA

"The Isthmus in Revolution—Between the United States and Colombia—The Negotiations for the Isthmian Canal—What will take place on September 23 if the Treaty is not ratified—Resort to Force—Panama wishes to secede from Colombia.

"The date of September 23, 1903, will be an historical one in this Panama question, which already numbers several such dates. . . . On that date, just three weeks from to-day, will expire the period within which the Hay-Herran Treaty between Colombia and the United States must be ratified. If Colombia will only consider her own interests, which happen to be those of civilisation; if she reconsiders her decision and ratifies the Treaty; then the Canal may be regarded as virtually made. But if Colombia remains obstinate in her suspicious, procrastinating and incomprehensible obstruction, and finally rejects the Treaty, or if she introduces amendments which upset all its provisions we shall then be face to face with the unknown, and the way will be open for every sort of combination.

"It has appeared to us interesting to examine the possible nature of

these combinations, and to raise the veil concealing the unknown. It has appeared interesting to us above all to determine what will be the situation on the 23rd September next in case of the final rejection by Colombia of the Panama Canal Treaty. The situation is clear, and the duty of the President himself is clearly laid down in the Spooner Law of June 1902.

"'If,' says this Law, 'the President is incapable of obtaining a satisfactory title for the property of the New Panama Company, and also the control of the necessary territory of the Republic of Colombia, he is authorised to open the Nicaragua Canal after receiving by treaty from Nicaragua and Costa Rica the perpetual control of the necessary territory.

"'Therefore if the control of the necessary territory of the Republic of Colombia cannot be obtained, President Roosevelt has to enter into negotiations with Nicaragua in order to obtain from it by treaty what Colombia refuses.

"'But he must begin these negotiations only after having exhausted every effort to obtain the 'control of the necessary territory of the Republic of Colombia.'

"Now these efforts have not yet been exhausted.

"President Roosevelt, as was his duty, has tried only one method—the most usual in such a case: that of endeavouring to reach an amicable agreement with the Republic of Colombia. There remain at least two others that can be attempted.

"He can wait—and this is the second method—until the revolution, which, as will be seen from our despatches is smouldering in the State of Panama, bursts out, and until the province declares itself independent, as it has done twice already during the last century—in 1840 and in 1856. In that case the President would merely have to make a Treaty with the new State of Panama.

"But he can also—and this is the third method—demand from the Republic of Colombia itself, on the strength of explicit stipulation, what it refuses to concede amicably.

"There exists a Treaty, signed in 1846, between New Granada and the United States. Article 35 of this Treaty stipulates as follows: 'The Government of Granada guarantees to the Government of the United States that the right of way or transit across the Isthmus of Panama by any mode of communication that may already exist or that may be hereafter constructed shall be open and free to the Government and to the citizens of the United States. . . .'

"The 'right of way' is, in the legal parlance of the American Union, the right of passing in its fullest sense, that is, not only the right of material transport, but also the right to carry out all the works necessary to transport under any system of transit or transport.

"The 'right of way' is in reality the right to establish the works necessary for the passage of trains if a railway be contemplated, or for the passage of a boat if a canal be under consideration.

"If we are correctly informed it is to this third method—to this legal coercion exercised in virtue of a treaty—that President Roosevelt would be minded to resort in order to obtain from the Republic of Colombia the indispensable control over the territory required for the operation of the Canal.

"And nobody could blame President Roosevelt even for employing force to obtain what is guaranteed to him by formal treaty and what he is unable to obtain by good-will.

"The Government of the United States has assumed one of the most

splendid tasks in the world, and pre-eminently one of which a country has the right to be proud : they desire to offer to the world, under conditions of rigorous equality for the nations, the great maritime highway which has justly been described as 'the hope of centuries, and the wish of peoples,' this route already two-thirds constructed by France, and which France herself unpardonably refused to complete.

"By her untimely and inconsiderate obstruction to the realisation of the greatest progress which now lies within the reach of man, in the arrangement of the planet, Colombia is overstepping her property rights. In thus barring the road to progress she acts like a landlord who tries to take a stand on his rights of ownership to prevent the construction of a railroad or of a road across his estate.

"*The property rights of private persons, like those of nations, have a limit, which is the superior law of the necessity of the circulation of the human collectivity.* And it is this superior law which President Roosevelt will enforce, and which it will be his next step to enforce."

I sent a copy of *Le Matin* under sealed envelope to the President of the United States, who was then in his country house at Oyster Bay, as well as to several of my American friends.

I hoped thus to sow in the guiding minds the conception of the means to be employed in order to carry out the Panama Canal against the Colombian opposition.

A Chance Incident takes me to the United States

Having thus done all that it was possible for me to do for the moment I made up my mind to await in Paris the revival of political activity in Washington.

A fortuitous incident changed my resolution. That incident was to have incalculable consequences.

During the summer of 1903 my venerable friend Mr. John Bigelow had come, with his daughter, Miss Bigelow, to spend some days under my roof in Paris.

My young son, then thirteen years old, was suffering at the time from hay fever. He had had a somewhat severe attack, and his state of health caused his mother much anxiety.

When Miss Bigelow, who had a great affection for this child, was on the point of sailing for America, she proposed to take him back with her. She was persuaded that he would soon recover, thanks to the sea voyage and to his stay on the coast of Maine, which the polar currents maintain at a relatively low temperature.

My wife, in despair at the failure of every remedy which medical science provides for this complaint, reluctantly consented to be separated from her child, and agreed to the experiment only on the understanding that she was to join him in September. The kind offer of Miss Bigelow was accordingly accepted under these conditions.

My plan was to join my family in America about six weeks later.

When my wife was ready to start in the middle of September, she was somewhat afraid to take the trip alone with her little daughter and she pressed me to accompany her.

At the last moment I decided to yield to her request. But as I did not see that there was anything to be done at that moment in America, I decided simply to make the sea voyage to New York, and then to come back by the first boat to France with the intention of again sailing some weeks later for a sojourn in America as long as events should make it necessary. It is owing to these quite fortuitous circumstances, that I arrived in New York on September 22, 1903.

Amador comes to see me on September 23, 1903

I naturally took advantage of my presence in America to visit and to question, as to the state of affairs at Panama, those who could give me any information.

On the day after my arrival I went to see an honourable merchant of New York and Panama, M. Lindo. He was at the head of one of the oldest banking firms on the Isthmus. I had known him there nearly twenty years before. No one was in closer and more constant touch with the influential personalities of Panama. No one was better fitted to inform me as to the general state of mind with regard to the political situation, which press despatches described as being exceptionally strained.

"Well, M. Lindo," said I, after the first exchange of compliments, "is the rumour true that the people of Panama are going to make a revolution?"

He shrugged his shoulders, in a disheartened way, and said: "*Faltan recursos.*" ("They have no financial means.")

"What!" said I, disappointed at this answer. "These people who are ever ready to make a revolution for insignificant causes, are going to keep quiet when Colombia decrees that they must die of hunger."

"It can't be helped," he said. "Without money a revolution cannot be brought about any more than a war. But if you care to know what the situation really is I will ask Amador to come and see you."

"What!" said I, surprised. "Amador is here?"[1]

"Yes," answered Lindo, lowering his voice, "he has come precisely to obtain the means of bringing about a revolution. But he has failed, and is sailing for Panama in a few days. He will tell you all. He is in despair."

When I reached my hotel, the Waldorf Astoria, in the evening

[1] Dr. Amador was a prominent man in Panama. He had been physician to the Panama Railroad, and therefore under my orders, in 1885.

I found two cards from Dr. Amador. He had come at 9.5 P.M. and at 9.25 P.M. He asked me urgently for an appointment.

I immediately telephoned to the Endicott Hotel, where he was stopping, to inform him that I would receive him on the following day at 10.30 A.M.

It was thus on the 23rd of September, 1903, that communication was first established between Amador and myself. On the very day of the lapsing of the Hay-Herran Treaty, owing to its non-ratification by Colombia—on the very day when the Panama Canal seemed to be condemned to death beyond possible reprieve—began the new phase which forty days afterwards ensured its final resurrection.

A Conspiracy first encouraged: then ignored

At the stated hour Dr. Amador entered my room. He was deeply moved by emotion and indignation and he told me a distressing story.

"During the past year," said he, "a group of citizens of the Isthmus of whom I was one, have met together to consider the measures to be taken if Colombia rejected the Hay-Herran Treaty.

"We one and all agreed that such a decision would stop all activity, ruin the inhabitants, and within a few years again transform the Isthmus into a virgin forest.

"Confronted by a decision so despotic we decided to prepare for an armed combat, rather than submit passively to the tyrant's sentence of death.

"But Colombia was capable of crushing all resistance: as its power is enormously superior to that of the province of Panama. Consequently we turned our eyes towards the great American Republic. She also had an interest in making an effective protest in presence of the extraordinary tide of the Colombian sentiment against the execution of the Canal.

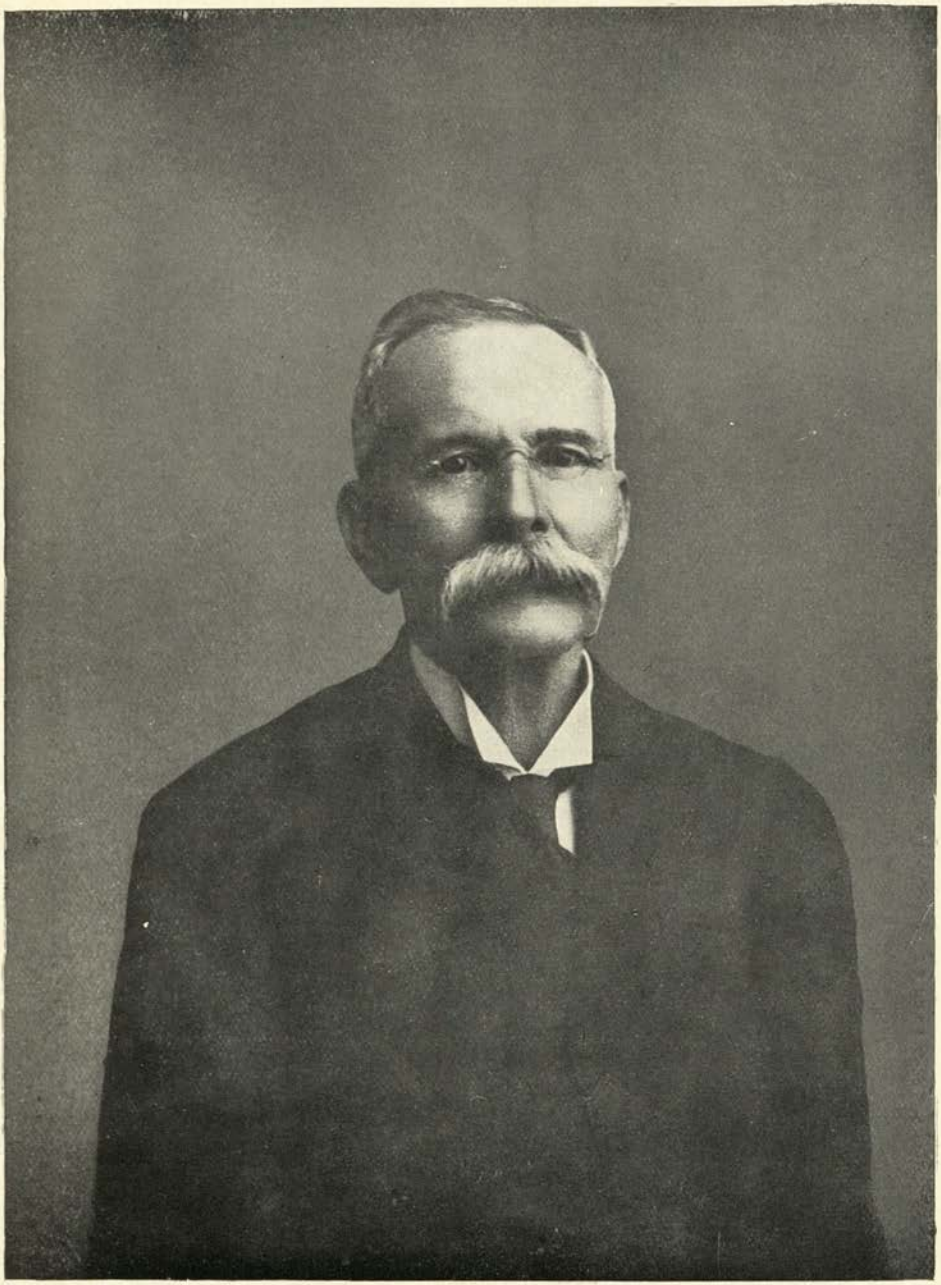
"Why should not this great Republic—so rich—so powerful, give the necessary co-operation in money and in military force?

"This idea seemed to us so reasonable that we decided to entrust with a mission to the United States a certain Beers, more generally known by the name of Captain Beers.

"He was an employee of the Panama Railroad. His mission consisted in visiting the right persons in order to learn whether this double support could be obtained.

"The persons whom Beers saw assured him that nothing was easier and they promised to obtain all that we asked for. Captain Beers came back to Panama to tell us of the happy result of his mission.

"Our friends then decided to delegate two of their number in order to reach a final understanding. I was one of the two delegates.



C. Endara, Panama]

DR. MANUEL AMADOR

But I was forced to go alone—the other one, being, at the last moment, unable to come. As soon as I arrived I was received with open arms by the persons whom Captain Beers had seen. I was to go to Washington to see Mr. Hay, Secretary of State, in order to conclude the final transaction.

"But suddenly the attitude of the person who was to take me to Washington entirely changed.

"Whenever I went to see him strict orders had been given to the effect that he was not in. I had to install myself in the hall, to camp there, and, so to speak, besiege his office. Nothing resulted from it. And there I am. All is lost. At any moment the conspiracy may be discovered and my friends judged, sentenced to death, and their property confiscated. I at first decided to return to Panama to share their fate. But I am hesitating. If my friends are shot I prefer to devote my life to avenging them on the man who will have been the cause of their deaths."

And the old man stopped speaking, nearly choked by his intense emotion.

"Dr. Amador," said I, "you are telling me a very sad story, but why did you withhold the name of the man who thus promised you the gold of the American Treasury—the Army and the Navy of the United States? This childish proposition bears the stamp of the man who formulated it. There is but one person in the United States capable of expressing himself thus." [I mentioned a name and Amador did not protest. I continued :] "He has a habit of speaking of the highest persons of the State in the way you just described to me. What! you believed in such empty talk. It is an unpardonable folly. With your imprudence you have indeed brought yourselves to a pretty pass."

"Alas!" said Amador; "if we had been only dropped, but the case is much worse. I have just received a letter dated the 14th of September from one of our associates, José Agustin Arango![1] He says in it that the cablegram 'disappointed,' which I had sent after realising my failure, had leaked out. He telegraphed to the man you have just named on the 10th of September asking him to tell me not

[1] In Appendix C the translation of the letter of September 14, 1903, from Sr. J. A. Arango to Dr. Amador will be found. It is reproduced from (the original being on the preceding page) *The Story of Panama:* "Hearings on the Rainey Resolution before the Committee on Foreign Affairs of the House of Representatives, 1913." Also in same appendix will be found the translation of a publication made on November 28, 1905, by Sr. J. A. Arango, who had become President of the Provisional Government after the foundation of the Panama Republic. Sr. Arango's publication withholds the name of the person with whom Amador was dealing; he designates it by the words "respetable persona" because he was writing publicly. But in the private letter of September 14, 1903, he gives the name of Cromwell.

In the same Hearings will be found documents which fully justify the author's reason for guessing correctly the name of the person which Amador at first withheld.

to correspond any more by the same channel, but to send my telegrams henceforth through Captain Beers. It was a pressing duty to transmit me this essential warning, upon which depended the safety of my friends. Well, it is incredible, it is monstrous, but nothing was said to me. I have been thus exposed unwittingly to the danger of giving up my friends to death, when it required merely the lifting of a finger to ensure their safety."

In saying this, the old doctor could scarcely master his intense exasperation.

"Calm yourself, my poor Doctor, you are the victim of your own heedlessness. And to extricate yourselves from the extremely painful situation in which you and your friends are plunged you must appeal to reason and not to passion. Tell me what are your hopes and on what are based your chances of success. Tell me all calmly, methodically, precisely."

These words soothed the exasperation of Amador. He remained some minutes before recovering his *sang-froid*. Then he continued in the following terms:

"After the revolution, which held the country in suspense for more than three years, peace has returned. There is to-day only a weak Colombian garrison at Panama. Moreover, these men who had been living for many years on the Isthmus, have ceased to count as foreigners to us. Our emotions, our aspirations, are theirs. Their General, Huertas, a valiant soldier, who has his troops well in hand, is himself shocked at the way Colombia is behaving towards Panama.

"A revolution would to-day meet with no obstacle. But the Colombians have the command of the sea; their ships' crews are loyal. We must first, therefore, acquire a fleet to prevent Colombia from overwhelming with her troops the province of Panama.

"Besides that we want arms. It was to obtain ships and arms that I have come here. Our first envoy, Captain Beers, had been assured, and the same pledge was repeated to me when I came, that the United States would give us all the money we needed to buy arms and ships and to pay the troops."

"'How big a sum do you consider necessary?" I interrupted.

"We need $6,000,000," replied Dr. Amador.

"My dear Doctor," I said, "you have exposed the situation to me and you come to ask for advice. I answer: Let me think it over. At first glance I see no way out of the labyrinth which imprisons you. To-morrow perhaps I shall find one. At any rate you asked for advice. I give it to you: remain here, and wait patiently until I see how the land lies. I warn you that it may take me several days, perhaps several weeks. At this moment there is nobody in New York, nor in Washington. I have not only to think myself, but to find out as well what

others think in order to get you out of your difficulty, if such a thing is possible. In the meanwhile, remain and see nobody. If you want to speak to me over the 'phone take the name of Smith. I shall take that of Jones."

The old doctor went out, having recovered his composure. He had grasped in his extreme need the open hand of a friend. He held up his head, sure henceforth of being led in the safe way by a man whom he had formerly been accustomed to obey.

Which did President Roosevelt prefer: Panama or Nicaragua?

Two days after my arrival in New York I had thus in hand the threads of the revolutionary plot hatched on the Isthmus. The confession of Dr. Amador showed me, likewise, that the man who had encouraged, then abandoned, him (whose name, Cromwell, was publicly revealed in 1912 by the documents of a Committee of Congress), had been powerless to interest the Washington Government in this plot. His absolute defection at the very moment when Amador expected to be led by him into Mr. Hay's office was significant. Evidently he must have sought by every means in his power to induce the Washington Government to encourage the conspirators under one form or another. If he had suddenly turned completely round it was because he himself had received a flat refusal. He had felt himself incapable of fulfilling, even partially, the rash promises he had made first to Captain Beers and afterwards confirmed to Amador. He had then withdrawn, had abandoned the unfortunates who had trusted him, and henceforth affected to have had no connection with them.

From these circumstances, as material as they were certain, resulted a fact extremely important for the study of the future and the preparation of events. They showed that the American Government explicitly refused to have anything to do with a revolution on the Isthmus.

This conclusion was certain. It was thoroughly proved by what had happened, as is a mathematical truth by a lucid demonstration.

But this attitude of Mr. Roosevelt's administration might itself be dictated by two different and entirely opposite considerations.

It might be the result of a desire to have done with the whole Panama question in order to begin on the Nicaragua proposition as soon as the Colombian Congress should be dissolved.

It might also result from the very natural desire to avoid any dishonourable connection with the agents of an insurrection in a country with which America was at peace.

To have a clear understanding of the future it was essential for me to know as soon as possible which of these two hypotheses was the true one.

The first hypothesis was not an unlikely one. On every side the failure of the Hay-Herran Treaty had produced a new blossoming of the hopes of the Nicaragua party. The Spooner Law gave an explicit mandate to the President of the United States to construct the Nicaragua Canal, if he could not obtain a satisfactory treaty for the Panama Canal. Public opinion still held for Nicaragua. Great popular papers like the *New York American*, or aristocratic papers like the *New York Herald*, were still carrying on strenuous warfare against Panama.

The reluctant marriage contracted with Panama seemed already dissolved on account of Colombia's attitude, and the natural leanings of the American people, arrested for but a brief moment, were reasserting their original power.

It would have been by no means extraordinary if President Roosevelt had wished to carry out the Spooner Law to the letter.

It was certainly tempting on the eve of the day when the elements of the Presidential election of 1904 were being prepared.

What more superb platform for a candidate than the proposal to solve the Isthmian problem according to popular preference?

Had Mr. Roosevelt, the President of to-day, the candidate of to-morrow, been tainted by the spirit of demagogy this first hypothesis would indeed have been turned into a reality.

By an Extraordinary Chance I obtain the Answer to that Question

An unforeseen event settled my hesitation with regard to the two hypotheses. It showed me that President Roosevelt was not subordinating public interest to popular preference.

His disdainful refusal to encourage the attempts made to obtain his support of the Panama Revolution was not dictated by a desire to revert to Nicaragua. The first hypothesis was false, and the second was true.

The inmost thoughts of President Roosevelt were revealed to me by the most fortunate of incidents.

Among my best and most faithful friends in America was Professor Burr, who was at the head of the Engineering Department of Colombia University.

He was one of the eminent engineers whom President McKinley had appointed in 1899 on the Isthmian Canal Commission, to decide between Panama and Nicaragua.

He had visited Paris with the other members of the Commission in 1899, and I had had several conferences with him on the relative value of the two routes. He was one of the first to abandon his prefer-

ence for Nicaragua, and, with Mr. Morison, he had become one of the champions of Panama. Friendly relations had been established between us, and I had not failed to send him from Paris the article of *Le Matin* of September 2, 1903.

I desired to know how he would contemplate the idea of a coercion of Colombia exercised in virtue of the Treaty of 1846, as anticipated in the said article.

I went, therefore, to see him in the early days of my stay in New York.

I found him disinclined to regard the idea as practically feasible.

"The American people," said he, "are not at all favourable to the idea of Panama. To be sure, since it is the law, they would have accepted this route, had the treaty with Colombia been ratified. They would not, however, agree to going one step further, or admit that the President should substitute coercion for the free treaty which the Spooner Law requires.

"It does not even appear to me to be legal. . . . . and yet, one of my colleagues at Colombia University, the Professor of Diplomacy, Bassett Moore, has said to me something similar."

"I would like very much to talk with him," said I. "Here is an authority on international law, who has ideas similar to mine. Try, my dear Professor Burr, to arrange an interview for us."

"It is very simple," answered Mr. Burr. "Come the day after to-morrow to my office at the University. I will invite Mr. Bassett Moore to come also. He will be delighted to meet you."

I did not fail to keep this appointment, though I did not then suspect the importance it was to have.

I was looking merely for the opportunity of discussing this very interesting point of international law with a recognised authority. I certainly did not think that the result of this interview would be a clear answer to the anxious question which I was constantly asking myself: "Is President Roosevelt for Nicaragua or for Panama? For the popular solution or for the scientific solution?"

At the appointed hour on the 29th of September I entered the office of Professor Burr. He was waiting for me with Mr. Bassett Moore. The conversation began. "Yes," said Mr. Bassett Moore, "I think that the Treaty of 1846 with New Granada gave the United States the right of carrying out the works necessary for the Canal. Its right of way or transit remains illusory, if Colombia, being incapable of making the Canal, prevents it from being constructed by us. To be sure this right is not explicit, but it is implied. It would certainly be necessary to settle the question of indemnity. But if it is not solved amicably one might resort to arbitration.

"What most astonished me," added the Professor, "one day was

to see this theory, to which I never gave any publicity, fully developed in a Paris paper."

I was some distance from Professor Bassett Moore. I pulled out of my pocket a folded copy of *Le Matin*. Before I had opened it, before he had seen the title; at the sight only of the tint of the paper, which is a pale cream colour and not quite white, as newspapers in America are, he exclaimed: "Yes, it was in that newspaper."

"Well," I said, "Mr. Professor, if you have not yet given publicity to your theory the moment has come in which to do so. The adoption of the Panama Canal is exposed to the greatest perils. The authority attaching to your name would give considerable weight to this view, which may save Panama. Will you allow me to speak of it to the *Sun*, which energetically supports the cause of Panama?"

"Oh no," replied the Professor quickly, and somewhat embarrassed, "our conversation must remain strictly confidential."

"But why?" said I, supposing I had only to overcome a feeling of reserve and modesty. "The situation is critical. Is it not your duty as a citizen to give to your country the benefit of your studies?"

Still more embarrassed, and not knowing what excuse to make, Mr. Bassett Moore answered: "The conditions under which I was led to formulate this idea are such that I can no longer consider it as my own."

I did not insist, and some minutes after I withdrew.

I was greatly astonished. I had the intuition that I had discovered by the most extraordinary chance a secret of the utmost importance. The question was no longer of a purely doctrinal character.

The theory had been formulated, and formulated by the highest authority on international law of the United States, under conditions that imposed secrecy upon him.

There were but two persons who could have any interest in having such an opinion formulated, and formulated secretly. They were either the President of the Republic, Mr. Roosevelt, or the Secretary of State, Mr. Hay.

I hastened from Colombia University down town, and rushed into the office of my friend and lawyer, Mr. Frank Pavey. "I am burning to know," I said, "tell me, who is Mr. Bassett Moore, the Professor of Diplomacy at the University of Columbia? It is extremely important that I should know his connection with the Government."

"It is very simple," said Mr. Pavey, "Professor Bassett Moore is the intimate friend of President Roosevelt. During the Cuban insurrection he was Assistant Secretary of State, while Mr. Roosevelt was Assistant Secretary of the Navy. They acted jointly during this period, and it has been thought that both were not only determined partisans of American intervention in Cuba, but also the essential

factors of that intervention. Their relations have remained very cordial. By the way," added Mr. Pavey, "about a fortnight ago, he was the guest of President Roosevelt at Oyster Bay. I remarked his name amongst the President's guests on board the Presidential yacht. The excursion ended in a terrible storm, and the President, with his guests, reached home completely drenched. The newspapers have all given details of this unlucky pleasure party. Yes, I now remember exactly, it was on the 16th of September."

The veil was lifted. It was to President Roosevelt that Professor Bassett Moore had expressed his opinion. And it was most probably the President himself who had shown him, on September 16, the copy of *Le Matin*, September 2, which I had sent to Oyster Bay, and which should have arrived on the 13th.

Grave and Rapid Consequences of Two Conversations

I was henceforth in possession of all the data of the problem. The interviews of September 24 with Dr. Amador, and of September 29 with Professor Bassett Moore, clearly revealed to me the mystery of the American policy.

The President had certainly rejected with disdain the attempt made by Cromwell to interest the American Government in an insurrection at Panama against Colombia. But at the same time he wished to fulfil the desire of Congress and to apply the Spooner Law; he wished to carry out the Panama Canal. He was not abandoning it in order to adopt Nicaragua. He was thinking at this very moment of coercing Colombia on the strength of the Treaty of 1846.

Henceforth I could act; I had ascertained the intimate dispositions of the American Government, without having been entrusted with the secret by any member of it.

I rejoiced once more in the extraordinary good luck, which, during all this American period of the history of Panama, had never failed to serve me. I had gone to New York by pure chance, and before I had been there a week I had in hand all the necessary reins for action. I held the threads of a revolution on the Isthmus, were it necessary to resort to one. I knew that in order to carry out the Panama Canal scheme President Roosevelt was ready even to employ coercion. Finally, I knew that if I were to unchain the revolution at Panama, the best way to break with the American Government would be to unveil my plans before them. My part was to create the facts, to determine the conditions, so that the Washington Government might act freely, according to its own interests. On the other hand, I was to be constantly on my guard against trying to associate them directly or indirectly, with the hatching of the revolution.

Such was the extraordinary assemblage of data which I had been able to collect, within less than a week, since setting foot on the American Continent; and such was the line of conduct which this data placed explicitly before me for my guidance.

It remained to determine which of the two issues defined by the *Matin* article of the 2nd of September was to be selected as the better: Revolution, or Coercion on the strength of the Treaty of 1846.

Before relating the series of facts by which I was led to the conclusion that the most difficult way, that of revolution, was absolutely necessary, I must recall an important incident.

Colonel Watterson makes a Monstrous Charge

As already stated, the rejection of the Hay-Herran Treaty had been the signal of a fresh campaign for Nicaragua.

It was the national solution extolled and defended by all the organs of public opinion except the *Sun*.

It seemed to have every right to victory. The explicit text of the Spooner Law, the proximity of the Presidential elections, appeared bound to ensure its triumph, in presence of the failure of the essential condition to which the choice of Panama was subordinated by the law, a treaty with Colombia.

In order to terrify the disheartened supporters of Panama, the partisans of Nicaragua resorted to the method which in France had so admirably served the enemies of this great work: Calumny.

An eminent journalist, who enjoys in the United States an enormous reputation, Colonel Watterson, launched, within a few days of my arrival, an abominable accusation.

In his paper, the *Louisville Courier Journal*, the "Nestor of American Journalism," as he is termed, announced one fine morning that the purchase of the property of the French company was nothing but an enterprise of theft and corruption.

"Of the forty million dollars that we are disposed to pay," wrote in substance this singular Nestor, "twenty are for thieves in France and twenty for the grey wolves of the American Senate."

The reputation and prestige of Colonel Watterson, coupled with the precision of his figures, gave to this contemptible accusation a resounding echo.

I had often measured, in France, the curious vertigo of panic-terror that seizes upon the most honest folk when they are called upon to face accusations of such a kind, and I knew the danger too well to neglect it.

I REPLY TO THE ACCUSATION ONLY BY RAILLERY

The best method in such cases of restoring courage to those who are attacked is to invite them to laugh at their fears. The accuser soon loses his footing when he feels himself to be ridiculous.

I wrote to the *Sun* on the 26th of September, the following letter, which it published on the 28th under the title of:

"COLONEL WATTERSON'S THIEVES

"A PLAIN STATEMENT BY A DISTINGUISHED FRENCH ENGINEER

"*To the Editor of the Sun.*

"SIR,—

"I have read in your yesterday's number an extract from Colonel Watterson's article on the Panama Treaty. This article seems to have been inspired more by the imagination of the writer of the *Thousand-and-One Nights* than by the dry contemplation of plain facts.

"If you think it necessary to reassure over-nervous people about the division between 'thieves' in France and 'wolves' in America of the $40,000,000 to be paid by this Government in case of purchase of the Panama property, it might perhaps be convenient to state that not one cent of said sum can be disposed of without a decree of the courts of France, the property paid for belonging to a company in bankruptcy and being managed by a receiver under supervision of the courts.

"Colonel Watterson seems to have felt the pressure of plain facts only when he says that 'Panama may have some engineering advantages over Nicaragua, but all others, and they are overwhelming, are with Nicaragua.'

"The mare of Roland, Charlemagne's nephew, we are told, had all the advantages, all the merits, and they were overwhelming. She had only one disadvantage, a technical one for a mare: she was dead.

"It is somewhat the case with Nicaragua.

"It has all the advantages over Panama except the technical ones:

> "*First*: The fifty miles of tropical swamps through which the Canal would be built, in the low valley of the San Juan, are known to be the healthiest place on earth.

"Some people insinuate that if no human being dies there it is because monkeys and alligators are the only inhabitants. But they must be wrong, though history tells us that Nelson, having come in the eighteenth century, with an English army from Jamaica to invade Nicaragua, was forced to retreat not by the fire of the Spaniards, but by the much more terrible fevers of this healthy country.

> "*Secondly*: No sailing ship will ever pass through Panama, on account of the calms; and it will be a death-blow to the democratic sailing trade; when it would be revived by the Nicaragua Canal, where schooners would swarm.

"Some people remark that the actual calms must be infinitely calmer than formerly, since the whole trade between the Pacific Coast and Europe has been made by the Isthmus of Panama and not by the Isthmus of

Nicaragua, between the discovery of America and the discovery of steam navigation, between Columbus and Fulton.

"During that period of several centuries sailing vessels constantly landed on both sides of the Panama Isthmus without remarking that it was impossible for them to get there and exceedingly easy to go to Nicaragua.

"The people who make such remarks are evidently erring, and we are ready to admit that sailing navigation would find itself immediately killed if the canal were constructed across that Isthmus of Panama which it was so inconsiderate to choose spontaneously and to keep for its use during many centuries in preference to that of Nicaragua.

"*Thirdly:* It is known that the Nicaragua route is the only virtuous route that can be selected across Central America.

"We willingly admit that anybody having touched Panama is lost forever—himself, his children, and his grand-children; that he is a thief, a wolf, and still something worse, and that anybody on the Nicaragua side is virtue-clad from head to foot.

"Let us admit all these advantages, all these merits, for Nicaragua, and many other non-technical ones; will they be sufficient to ensure a good and permanent water route?

"Unfortunately, no! And this is the point, the only point worth considering, where technical disadvantages step in.

"The exhaustive researches of the Isthmian Canal Commission have shown:

"*First:* That the Nicaragua route cannot possibly have the easy curves with large radii, which are absolutely necessary for the safe transit of long ocean steamers of nowadays, and which natural conditions allow to obtain in Panama.

"*Secondly:* That the problem of the regulation of the summit level could not be completely and absolutely solved in Nicaragua as it is in Panama, and that the maintenance of the depth of water, in the longest section of the Nicaragua route, must necessarily be left to the experience, to the judgment, to the foresight of the man in charge of storing more or less water in the lake, according to the probability of rains or droughts in his mind.

"*Thirdly:* That the rains, violent winds and strong river currents, combined with the sharp curves, would make navigation in certain months amount to practical impossibility.

"Outside of these facts, the volcanic disasters of Martinique have shown the dangers of trying to saddle with huge masonry dams and locks a volcanic country in actual activity.

"A route where navigation is not safe and permanent is useless and dead beforehand.

"The Nicaragua solution, like the mare of Roland, has all merits except one: it is dead, now and forever. All the money and the genius of the world will not revive it.

"This is what explains the sudden reversal of opinion in the Senate and in the House of Representatives at the same time, in June 1902, when the Members of Congress could for the first time judge the facts which were brought to light by the eminent experts of the Isthmian Canal Commission.

"It is less sensational, much less entertaining, than Colonel Watterson's theory, but engineers as a rule are so dull compared to novelists.

"P. BUNAU-VARILLA.

"*New York, September 26.*"

I thereby destroyed by irony the effect of the monstrous accusation while taking advantage, at the same time, of the opportunity of giving prominence to the causes of the preference for Panama and to the irremediable defects of Nicaragua. It was an opportune moment, as people were beginning entirely to lose sight of that aspect of the question.

Colonel Watterson Apparently in an Epileptic Fit

The effect was miraculous. In his majestic character of the "Nestor of American Journalism," Colonel Watterson did not conceive the possibility of so stinging a reply, and he offered the comical spectacle of an infuriated bull whose hide has been pierced by an agile *picador* in the arena. His answer was all but incomprehensible, for the unfortunate Colonel seemed to be utterly congested by rage.

His blind fury was divided between the *Sun* and myself. He began his article as follows :

"The Boss Primogenital He-goat of the Jim-Jammers—In Point of Fact The New York 'Sun'—*trots out of the Panama paddock a What-is-it, which it designates : A Distinguished French Engineer.*"

As a sample of his remarkable humour the Colonel substitute for my name that of "Vanilla Bean," which appellation seemed to the Colonel so exquisitely witty that he has employed it ever since when he has condescended to direct his readers' interest to my humble personality.

On the same day, October 6, when he published his answer to my letter, he declared to a correspondent of the *Sun* that :

"If it be true, as the *Sun's* 'distinguished French engineer' says of the Nicaragua route, that all the money and the genius of the World will not revive it, there must be *a fresh relay of money* from the railway trust, and a *fresh relay of promises* from the French company *enough to control the President, body and breeches*, and to make abortive the alternative mandatory clause of the Spooner Act."

Evidently the pain which my letter caused Colonel Watterson had almost obliterated his powers of reasoning. He had been exasperated to such a degree that he even suggested the possibility of the corruption of the President himself.

A Point on which Americans do not tolerate Jokes

Their representatives in the Senate or in the House may be accused of anything, that is indifferent to Americans. But since the foundation of the Republic no suspicion has ever been cast upon the President —except, perhaps, against Washington himself. Colonel Watterson compassed his own defeat by allowing this ineptitude to be printed,

The manœuvre had failed, the enemy was fleeing in disorder.

The incident was of good augury and left me free to devote all my time to the search of a better way out of the labyrinth.

What then, to repeat, was the better way; coercion of Colombia by virtue of the terms of the Treaty of 1846, or secession with its corollary, a change of sovereignty?

I MAKE UP MY MIND THAT SECESSION IS THE SOLE SOLUTION

Men are always predisposed in favour of solutions necessitating great efforts on the part of others and lesser ones on the part of themselves. I am bound, therefore, to acknowledge that the method of coercion by the United States on the strength of the Treaty of 1846 had my preference. At the same time that did not prevent me from studying its practicability.

I was certain that President Roosevelt was in favour of this method, but in what way? It could only be with the authorisation of Congress. I wished to discover what probability there was for such an authorisation. After a few days I become convinced that failure was certain.

As Professor Burr had believed, all the friends I consulted were unanimous in declaring that this method was radically impossible. They were even disinclined to think that the President would ever go so far as to insert such a recommendation in a message.

I got the impression that some of my friends, when they saw my insistence, thought my mind was getting unbalanced.

My conviction shortly took a very definite shape. The theory based on the Treaty of 1846 was too abstract to appeal to a great democracy. Such obscure arguments are grasped by a nation only when they flatter, in their consequences, its general hopes and aspirations. In the present case it was quite the contrary.

Finally it appeared evident that of the two ways out described in the *Matin* of September 2, only one was really feasible and practical: the Revolution.

MY MORAL RIGHT TO DIRECT THE SECESSION MOVEMENT

A grave question of conscience confronted me. "Had I the moral right to take part in a revolution and to encourage its development?" My answer was: "Yes."

"Yes, because I had twice warned President Marroquin, in November 1902 and in June 1903, of the grave risks to which its anti-canal policy exposed Colombia.

"Yes, because I had again notified these risks to the Vice-President of the Senate, General Nel Ospina, in August 1903.

"Yes, because I had, for a fourth time, given the widest publicity to the fact in the article of the *Matin* on September 2, 1903.

"Yes, because Colombia was obviously prosecuting a policy of piracy aiming at the destruction of the precious work of Frenchmen.

"Yes, because this great enterprise was placed in one of those ill-defined moral zones where politics tyrannise over law and violate justice with impunity.

"Yes, because in the absence of law, and in presence of arbitrary political action, every man has the right to oppose another political action in order to bring about the triumph of justice."

I certainly had the moral right to annul, by political action at Panama, the fatal effect which political action at Bogota was bound to have on the gigantic French interests of which I was the sole defender.

The only objection that could have been made, might have been that I had taken the Colombians unawares. But I had four times individually or publicly shown to Bogota the consequences of its policy!

Colombia had refused to pay the slightest heed. She had declared war against law and justice. Nothing remained but to carry on the war. It was for me a cruel duty, but it was my duty.

My conscience could not reproach me if I backed the revolution and took the leadership of those who were disposed to risk their lives in defence of their country's interests.

I exposed myself to the violent attacks of the Colombians, but I assured the existence of the work which, later on, was to flood their country with prosperity. I should have to remain exposed for many years to mad accusations, but the day would come when Colombia herself would render me justice and recognise that I had been actuated by concern for her superior interest. Meanwhile I was sure to be approved by the civilised world.

CHAPTER XXVI

THE THEORY OF THE SECESSION OF PANAMA

If I had a clear view as to my moral right to foster a revolution, the same could not be said of my conception of its material practicability.

The means of realising it seemed to me beyond the domain of possibility.

Amador was, in my opinion, a childish dreamer in hoping to obtain from the United States six million dollars and her military support; yet he declared these two elements indispensable.

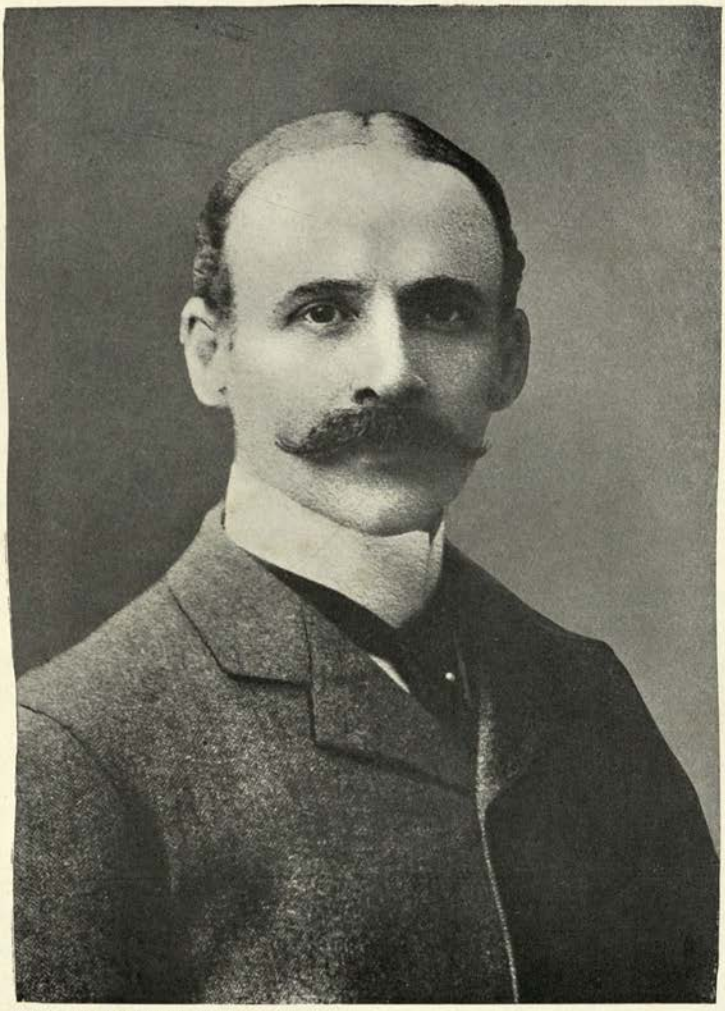
The necessity of obtaining these enormous advantages coupled with that of never mentioning directly or indirectly the subject to the only person who could grant them, namely, the Government of the United States, seemed to foredoom any scheme of a revolution to failure.

But I had so often in my life seen apparently insoluble problems solved, that I did not despair.

Futile Journey to Washington

While I was looking night and day for a way out of my perplexity, I decided to go to Washington at the earliest opportunity in order to verify there, if possible, my conviction as to the state of mind of the American Government. I had been able indirectly to determine, by induction, thanks to my interview with Professor Bassett Moore, the dispositions of the President as regards Panama. But direct corroboration was needed to confirm my conclusions. Such certainty I could obtain at Washington alone.

By a fresh stroke of luck, which continued the extraordinary series I have already mentioned, a personal friend of mine, Mr. Francis B. Loomis, had been appointed some months before, first Assistant Secretary of State. He was, therefore, in the Department, second only to Mr. Hay. I had had the pleasure and the honour of making the acquaintance of this eminent man in Paris about the middle of 1901, some months before he went to occupy the post of Minister Plenipotentiary for the United States to Portugal.



Benjamin, Cincinnati, Ohio]

THE HON. FRANCIS B. LOOMIS, FIRST ASSISTANT-SECRETARY OF STATE

Face p. 304]

My British friend, Sir Edwyn Dawes, had given Mr. Loomis (who was travelling with his wife) a letter of introduction to me, and cordial relations resulted therefrom between our two families. It is curious to note that Sir Edwyn Dawes had himself been put into contact with Mr. Loomis through his American homonym, Mr. Dawes, the Controller of the Currency, to whom I had been introduced, as may be recalled, through a letter of Sir Edwyn Dawes during my stay in the United States at the beginning of 1901.

The presence of Mr. Loomis in the Department of State promised me a most interesting interview. Whatever the cordial character of our relations, however, I was compelled to observe a strict reserve on official questions. Nevertheless, while constrained to adopt that scrupulous attitude, I could not fail to gain from his conversation precious indications. All I wanted to know was whether the American Government, tired of Colombian obstruction, was disposed to revert to Nicaragua, or whether, as I believed, it remained faithful to the preference shown by Congress for Panama.

I went for that purpose, therefore, to Washington early in October, but no one had yet returned to the capital, and my trip remained without result.

Letter to Professor Bassett Moore really meant for the President

About that time, as I had the most serious grounds for believing that Professor Bassett Moore was in intimate relations with President Roosevelt, I wrote to him on October 3, referring to our interview of the 29th of September. My words to him needed no further explanation. It was merely a pretext to have the necessary information filtrate through to the President, without any direct contact with him, and without telling Professor Bassett Moore of my real motive.

In this letter, reverting to the article of September 2, which had so much astonished him, I again took occasion to show the President what a crime it would be against the interests of the nation to fall back on Nicaragua.

I likewise seized this opportunity to probe the American Government on the subject of possible support, whether financial or military, for a revolution on the Isthmus.

I had no right to strike out this solution altogether from the list of possibilities, though it seemed to me unlikely. By formulating it, as I did in my letter, I rendered its choice possible if, against all appearances, it turned out to be feasible.

In that case Professor Bassett Moore would thus have been a spontaneous intermediary to inform me of the desire of the American

Government to enter into such a compact. If nothing came of this indirect suggestion, then I was evidently in the right, the American Government refused, under any form or pretext, to engage their responsibility in an adventure of this kind.

This was, indeed, the result of my letter. Professor Bassett Moore did not manifest in any form or way that the Government desired to encourage a revolution.

The question had been asked in the most discreet, and I may say the most subtle, way; and the answer was of the same order.

I give the text of my letter to Mr. Bassett Moore. I sent with it an extract from a letter of M. Carlos Arosemena, one of Dr. Amador's confederates. This letter of M. Arosemena, dated Panama, September 20, was a clear refutation of the plan of procedure which certain Colombians were then eager to impose upon the United States. They said, "Wait one year for the election of General Reyes to the Presidency of Colombia." Those of the Colombians who gave that advice were simply snatching at a delay in order to reach the moment of the forfeiture of the concession of the French company, in order to arrange for a concession under new terms with the United States, and to pocket the sale price of the company's property. The letter of M. Arosemena was valuable, because it showed that other obstacles were rising spontaneously that would prevent the realisation of this piratical plan.

"*New York,*
"*October* 3, 1903.

"PROFESSOR BASSETT MOORE,
"*University of Colombia.*

"DEAR SIR,

"It might be of interest to you to have a copy of *Le Matin*, which contains my article on the Panama situation. You will find it enclosed.

"As I told you, I was led to it by a purely logical examination of the various elements of this grave question, which has been the object of my life-study.

"I gave my ideas publicity, under the form of a newspaper article, because I had been away from the United States since last March, and could not therefore be suspected of misusing any friend's personal confidence. I thought it advisable to throw this new notion into the public mind by the very appropriate channel of the *Matin*, the influence of which in political circles is infinitely greater than that of any other paper in Paris, and the circulation sufficiently large (about 350,000) [1] to bear also on the minds of the people.

"I desired to test the public and to see what its answer would be.

"The result was completely satisfactory, and papers rather unfriendly to the purchase of Panama by the U.S., like the *Journal des Débats* and *Le Temps*, have formulated no objection but have rather appropriated the theory to themselves.

[1] It is now (in 1912) more than twice that figure.

"This showed very distinctly how great is the force of the argument in itself, and what effect may be expected of its disclosure.

"The following conceptions led me to think that the high interpretation of the Treaty of 1846, combined with the theory of eminent domain, would lead to cutting the Gordian knot before which President Roosevelt finds himself.

"They are based, as you will see, on the facts commanding the whole situation, and also on the well-known character of President Roosevelt, on his prudence in counsel and boldness in action.

"We have at first to admit that the Isthmian problem has to be solved in a very short time, within the few months which separate us from the Presidential campaign.

"Prudence forbids the actual administration to come before the people without a solution of the Canal problem. The President cannot expose either himself or the Republican party to be accused of having played the game of the transcontinental railroads, and of having killed any canal solution by waiting an unreasonable time for Colombian good-will, instead of realising the popular plan of Nicaragua.

"It follows that the solution cannot possibly be delayed many weeks. Is it Nicaragua?

"If the head of the State were a moral relative of Pontius Pilate, this would probably be the solution, but Mr. Roosevelt has always shown, and specially in the Schley controversy, that he will never yield an inch to the demagogic pressure of public error. He is not one of those men who like to be blessed ten years, if they know they will afterwards be cursed ten centuries.

"The man who puts at the service of his country, as he does, the best of his ability, will not allow the greatest enterprise of the nation to be begun at the wrong place; will not allow the public treasury to go into a wild-cat speculation against the antagonistic forces of Nature; will not allow to begin the construction of an impossible way, of which the obligatory failure would be an everlasting reproach to his administration and a monument of misery erected by him to the prejudice and conceit of his country—a monument which would remain like the Tower of Babel in the memory of the nations.

"No; the alternative of the Nicaragua solution in the Spooner Bill, is nothing but the bridge which has allowed Congress to pass from the wrong opinion, based on an old technical error of the public sentiment, to the right one based on proven facts and scientific researches; from imagination to reason; from Nicaragua to Panama.

"This bridge will never be passed again, and it is not President Roosevelt who will step backwards from truth towards error.

"If the Canal must be decided on soon, if it cannot be built in Nicaragua, and if Colombia insists on trying to its extreme limit the patience of the American nation, what will happen, what must happen?

"There are no other answers but the two that I gave in *Le Matin* article: Either to wait for a separation of the Panama Isthmus from the Republic of Colombia, or to enforce the Treaty of 1846, upheld as much as necessary by considerations derived from the theory of eminent domain.

"The first of these two solutions must be named for the sake of argument, but is not probable in my mind.

"From very reliable information I possess, the sentiment in all classes of the population on the Isthmus is for a secession from Colombia, and for a direct treaty of the independent State of Panama, with the United States, strictly on the basis of the Hay-Herran Treaty.

"But it is infinitely probable that the explosion of this sentiment will only take place if it were encouraged beforehand by the United States; if it should receive a financial subsidy and a moral pledge that the new Government will be recognised by America, and protected from Colombia's soldiers immediately after the proclamation of independence.

"Now such a step, though not altogether unknown in the history of the world, is not very much in harmony with the necessities of a popular Government like yours, and I do not see very well that the classic tricks of a diplomacy, based on Machiavelli's principles, would be quite at their ease on this side of the Atlantic.

"The probability of such a political explosion on the Isthmus being removed, the only solution which remained to be considered is the one based on the enforcement of the Treaty of 1846, combined with the theory of eminent domain, which I tried to explain in *Le Matin* of the 2nd of September, to the European opinion.

"This is the whole history of that newspaper article: I have not been led to it by any personal hint or private confidence, but simply by the gradual elimination of the hypothesis contradicted by certain dominant features of the question.

"Now, since the 2nd of September, certain eventualities have eliminated themselves.

"The Colombians, entirely given up to their internal factions, have killed the Hay-Herran Treaty, mostly through fear that the Marroquin administration would get from it a moral credit and a financial support. The Senate, though divided into antagonistic factions, has found itself united to prevent the common enemy to derive strength from the Treaty.

"You will perhaps read with interest the extract of a letter sent recently from Colombia, and which throws light on what the best friends of the Canal are trying to do.

"As you will see by the enclosed extract, the plan actually followed is exposed to the very same eventualities which killed the Hay-Herran Treaty, and General Reyes, if he is elected, which is doubtful, will be as incapable as Marroquin to get any treaty through Congress. It would be foolish to expect anything good from a fresh delay of a year, and to think next Congress would be better than now.

"I have lived very much with Spaniards and Spanish-Americans, and I profess to know them well. They have admirable moral qualities, but when the Don Quixote side of their character gets stronger than the Sancho Panza side, nothing will stop them, and the strong arm of the windmill is the only thing that can bring them to reason.

"It is very much to be lamented, but I think the probability of a cordial, amicable solution, like that provided for by the Hay-Herran Treaty, is infinitely small now, and that this probability will soon vanish entirely.

"The time for prudent deliberation will expire simultaneously, and that for boldness in action will come immediately after.

"There will be room for a 'Roosevelt Doctrine,' in international law, perfecting and completing the Monroe doctrine. The right of protecting the South American interests against European interference, as proclaimed by Monroe, will have to be counterbalanced by the proclamation of the right of protecting the European (and North American interests) against South American interference.

"The superior right of free circulation is a universally recognised principle. Only savage tribes of South Africa now maintain the old feudal right of bygone ages, to extort money from caravans passing on their terri-

tory. America cannot allow one of the nations she protects to treat the whole world in the same way, though indirectly.

"The right of protecting involves the duty of policing.

"Excuse this too long letter, but I thought I owed you some details about the subject of the short conversation I had with you under the kind auspices of Professor Burr.

"Please to accept, etc.,

"P. BUNAU-VARILLA."

To this letter was appended the following extract of a letter from M. Carlos Arosemena in Panama to Dr. Amador in New York. I eliminated from the copy sent to Mr. Bassett Moore any reference to the name of these two gentlemen.

"The esteem in which we hold Obaldia[1] makes it a duty for us to leave him in ignorance of everything, because, as you say, his position is a difficult one; and his ideas to-day are the same as before in what touches the separation from the step-mother.[2]

"In the capital[3] they have committed the new folly of believing that the United States Government will have confidence in the promises they make her, just after the slight she experienced in believing that the Treaty made by the Representatives of Colombia with the authorisation of the head of the State, would be ratified. If this failed, in spite of the efforts of official circles, what confidence will be inspired by all the promises for a future covered with innumerable contingencies, to the serious government of the United States.

"The project which Obaldia brings with the approval of our friend Reyes, consists in working for the candidature of the latter, with the intention of calling a Congress to approve the Treaty after the election, a plan which for various reasons is very childish.

"If Reyes has not thrown his influence into the scale by fear of a disaster—and he has done so because he knows the folly of our public men and of our people of the interior—how can he believe that he will succeed in his election when the public will know his plan as it is bound to, because such things cannot be kept concealed? Even believing that he would succeed in his election, of which I am a partisan, he is bound to miss a majority in the Congress which will be called with nearly the same elements which it has now. As you know, only nine senators (out of twenty-seven) are submitted to re-election, and those would be the only ones favourable to the Treaty if we do not depend upon contingencies like that of Señores Caro, Perez y Soto, etc.

"In one word, for the majority of to-day to change their opinion is very improbable, because those votes cannot be bought, either with gold or with offices. You must also take into account that the influence of Caro is increasing, and that he will be the absolute umpire of the decisions of next Congress, and so much more so, because he will not favour the candidature of Reyes.

"In the actual Congress there was only one man for the Treaty; our friend Obaldia. The others have been entirely adverse, and the less adverse

[1] M. Obaldia was the loyal Senator of Panama who alone had protested against the rejection of the Treaty. He had returned from Bogota as Governor of Panama likely to promote the future election of Reyes to the Presidency of Colombia.

[2] Colombia. [3] Bogota.

required at least modifications which were inadmissible for the United States. The new project does not go beyond a Utopian childish dream. Besides, how many unfavourable events may take place during such long time; you know that the new President will take possession before August 1904, and it is only after that date that he will be able to call Congress."

M. Carlos Arosemena might have added that Congress would not be convened before the month of October 1904, just in time to declare the forfeiture of the French company's concession and the confiscation of its property. This intention was to be formally expressed by the Colombian Senate about six weeks after M. Arosemena wrote his letter.

My Plan of Conduct towards the American Government

The sending of this letter to Professor Bassett Moore and the implicit answer which seemed to me to be contained in his silence, dictated my rule of conduct at Washington.

I had to eliminate from my conversations everything that could suggest that I was soliciting the co-operation of the United States. The least allusion to this order of facts would evidently be repugnant to any member of the Government of the Union. While thus respecting the liberty of my interlocutors I could keep for myself the liberty of presenting them with useful suggestions in the garb of information without giving them the slightest ground for suspecting my participation in the revolutionary movement. I was sure to be well received if I remained faithful to these rules.

Important Visit to President Roosevelt

On Friday the 9th of October, 1903, I was again at Washington, and I learned that Mr. Loomis had returned, as well as the President. On the following day I called on the Assistant Secretary of State, and we had a cordial conversation on various subjects. When I told him that I had recently taken an important proprietary interest in *Le Matin*, he said:

"Then you ought to go to present to the President the compliments of *Le Matin*. Do you know Mr. Roosevelt personally?"

"I have not had the honour."

"The President should be glad to receive you," said Mr. Loomis. "I will go and inquire."

After a telephonic call to the White House, Mr. Loomis informed me that President Roosevelt would receive me at twelve o'clock.

I took leave of Mr. Loomis, and an hour later I was on my way with him to call on the President.

C. M. Bell Photographic Co., Washington

PRESIDENT ROOSEVELT

I was, as may be understood, very happy to avail myself of this opportunity to talk over the delicate Panama question with the President himself, and to observe his attitude, and take the necessary soundings.

I was received with the characteristic open-heartedness which has won this remarkable man so many friends.

We conversed about the *Matin*. I was awaiting an opportunity to bring up the Panama subject. Mr. Loomis having cited the publication of the famous *bordereau* in the Dreyfus affair as being among the great achievements of *Le Matin*, I jumped at the opportunity. The bridge was found, I crossed it. "Mr. President," I said, "Captain Dreyfus has not been the only victim of detestable political passions. Panama is another."

"Oh yes," exclaimed the President, suddenly interested, "that is true, you have devoted much time and effort to Panama, Mr. Bunau-Varilla. Well, what do you think is going to be the outcome of the present situation ? "

It was then or never. I could by my answer know exactly what the President had in mind. I remained silent for a moment, and I pronounced the following four words in a slow, decided manner :

"Mr. President, a Revolution."

The features of the President manifested profound surprise. "A revolution," he repeated mechanically. Then he turned instinctively towards Mr. Loomis, who remained standing, impassible, and he said in a low tone, as if speaking to himself : "A Revolution ! . . . Would it be possible ? . . . But if it became a reality, what would become of the plan we had thought of ? . . ."

I had an intense desire to say to him, "Mr. President, the plan of which you had thought is coercion of Colombia, based on the Treaty of 1846, as interpreted by Professor Bassett Moore. I have supported this idea in a letter to him and added to it the doctrine of the expropriation of sovereignty for reason of international utility. The letter was directed to him, but it was for you, Mr. President, and you must have read it."

Of course I remained mute, and I concealed my joy at hearing the interrogation which had escaped from the mouth of the President. He quickly recovered himself, and asked : "What makes you think so ? "

There was no interest in going further. I answered : "General and special considerations, Mr. President. As you know, the revolutionary spirit is endemic on the Isthmus. There is almost a certainty of seeing an endemic disease spread violently when the circumstances favourable to its development have reached their maximum. Colombia has decreed the ruin of the people of the Isthmus. They will not let

things go any further without protesting according to their fashion. Their fashion is—Revolution. I have furthermore certain special indications that corroborate these general considerations."

The conversation ended there. I had no desire to say more, and the President on his side did not care to hear more.

What I gathered from my Short Visit to the President

I left the private office of the President finally in possession of all the elements necessary for action.

I had at last the direct confirmation of the inductions which thus far I had drawn solely from pure reasoning: the President of the United States was holding firm for Panama.

If a revolution were to generate new conditions favourable to the acquisition of the Canal zone by the United States, President Roosevelt would immediately seize the opportunity.

I was henceforth certain of this capital point, as certain as if a solemn contract had been signed between us. No word had been pronounced, no concealed meaning had been attached to any sentence which could constitute a tie between us. His liberty was as complete as my own.

I left Washington, having extracted the first and most essential of the unknown quantities from the problem confronting me. I had the basic thought of the American Government as to the application of the Spooner Law, without having said anything nor heard anything in confidence or under the guarantee of secrecy.

I conceive the Complete Theory of the Panama Revolution

It remained for me to discover the second unknown quantity. How could a revolution be made successfully at Panama without the financial co-operation of the United States, and without the express promise of her military support?

The intense satisfaction I felt after finding the complete solution of the first equation, led me to discover the unknown quantity of the second one.

The great and apparently unsurmountable obstacle was the obtaining of a sum of $6,000,000 for the necessary armament. In trying to reduce this demand of Amador, the light suddenly flashed across my mind during my railway journey back to New York.

What was going to be the use of this $6,000,000, according to Amador? To buy ships, which would be equipped for war in order to sink the Colombian ships, and to prevent the transportation of troops!

But where were these military movements to be feared? Was it in the Isthmus *itself?* By no means, because the Treaty of 1846 gave to the United States the right, and imposed upon her the duty, of turning any belligerents away from the line of transit.

All this costly war machinery would, therefore, be useful solely to protect the insurrection in the western part of the Panama province, near the frontier of Costa Rica.

The Isthmus, properly speaking, was separated from this western portion by immense virgin forests, while towards the east, it was separated from Colombia by an impassable wilderness.

What was the use of uniting in the same revolutionary movement these two groups of territory so distant and so distinct?

Why be hampered by the irrational conception of the Department of Panama?

Why not give as territorial limits to the New Republic, at all events at the outset, the watersheds of the Chagres and of the Rio Grande?

The more I reflected on this new idea, the more clearly did I behold the solution of all the difficulties.

In the basins of these two rivers, the common watershed of which was the summit of the Culebra, there were no inhabitants who did not live within gunshot of the line of communication between the Oceans.

The duty of the United States was precisely to exclude all fighters within gunshot of the line of the railroad.

The United States bound by the Treaty of 1846 to protect a Revolution were one to break out

I had myself seen the United States, in 1885, performing her duty and preventing any fighting in this zone, as I have said already.

It may be remembered that in 1885, a Revolutionary army commanded by General Aizpuru had seized Panama. The town once taken, the American troops had entered Panama to prevent disorder. But when it was seen that the Revolutionary Government was maintaining order, the American forces were withdrawn, and they confined themselves to garrisoning the railroad and its wharf, the sole means of communication with the Pacific Ocean.

Some days later, two ships laden with Government troops tried to land at the wharf.

General Reyes, who commanded the Colombian troops, was invited to withdraw, and the landing was forbidden by Commodore MacCalla.

I had seen with my own eyes, therefore, in 1885, the Revolutionists protected from the aggression of the Government troops by the American military authorities.

It was under President Cleveland, when the Democratic party was in power. At that time the thought of making an American Canal at Panama did not exist even in embryo.

The prohibition of fighting within gunshot of the line of transit had always been, without any exception, the principle enforced by the United States, with the consent and sometimes at the request of Colombia. It was a formal and direct consequence of the stipulations of the Treaty of 1846.

In the preceding year of 1902, the same principle had been re-enforced at the very moment of the difficult negotiations with M. Concha, for the grant of the Canal concession to the United States.

In September 1902, Commodore MacLean had forbidden all transportation of troops on the railroad. General Quintero, commander of the Colombian troops, and General Herrera, commander of the Revolutionary troops, had received the same notification.

It was at a moment when the greatest care had to be observed not to hurt Colombian feelings.

How could it be doubted that the American forces would act in the same manner one year later, at a time when Colombia had taken a decidely hostile attitude ?

No hesitation was possible. The solution had been found ! The mysterious problem was solved ! The final unknown quantity had been at last discovered and the equation resolved, as the French mathematicians say, in the most elegant manner.

It was no longer necessary to spend enormous sums for a useless war.

It was no longer necessary to present the impossible request for protection by American forces. Such a thing was indispensable to an insurrection covering the whole province of Panama, but it was eliminated entirely if the insurrection was limited to the Isthmus, properly speaking.

If a Revolution was started from Colon to Panama the American forces were automatically, and without any anterior understanding, obliged to intervene.

Their intervention would consist in forbidding any armed force to come within gunshot of the line of transit.

All the villages, all the houses, all the inhabitants within that zone, would immediately enjoy all necessary protection.

Once such military protection was secured, the new Republic could wait.

Would it be, or would it not be, immediately recognised ? To this queston no answer could be given. But of the two political entities—the great protecting Power and the small protected Power—which had the greatest interest to end such a ridiculous situation ?

It was evidently the United States, and furthermore she had the greatest interest in settling the Panama Canal question.

I EXPLAIN MY NEW SCHEME TO AMADOR

The more I thought of this new idea, the more simple, clear, decisive, it seemed to me. I had not been wrong when I had faith in the solution of a problem which at first glance seemed insoluble.

Before completely exposing these new ideas to Amador, I thought it necessary to question him again as to the means of carrying out the Revolution.

As all the information with which he furnished me was in harmony with my new conception, I disclosed my plan to him on the evening of Thursday, the 15th of October.

His attitude was sullen. Evidently his mind had for some months been accustomed to brooding over the idea of a contract with the United States, such as novelists imagine. He saw himself associated with the President and the Secretary of State of the powerful Republic, and disposing of her millions for a common enterprise.

In spite of my efforts to make him comprehend the truth, he was certainly persuaded that such a plan as the one to which he was listening, had been conceived at Washington, in the White House, and not in my own mind on the return journey to New York.

A special circumstance certainly confirmed him in his conviction.

"You say," he interrupted, in a tone of rebuke, "that with this plan there is no more need of money; but it will still be absolutely necessary. On the day following the Revolution we shall have to pay the arrears to the troops."

"I admit it," I replied, "but 6,000,000 dollars will not be necessary for that. There are 500 men. Let us put 20 dollars—100 dollars if you like—for each man. This makes 50,000 dollars."

"It is not enough," said Amador.

"Let us put 100,000 dollars if you like," was my answer.

He was obliged to admit that 100,000 dollars would be sufficient.

"Well, Doctor," I said, "it is a small sum. I shall probably be able to borrow it in a New York bank."

"What if you don't succeed ?" he retorted.

"Well, I shall give it out of my own pocket," I said. "I can make such a sacrifice as that, but I could not give 6,000,000 dollars."

Evidently the idea that I could risk 100,000 dollars from my private means, to save the work of Panama, never entered the mind of the doctor. He certainly saw there the shadow of one of those mysterious treasures of the American Secret Funds, which exist in fiction, but nowhere else.

"No," said Amador finally, "we cannot make the movement in that way. We all of us at Panama own more or less property in the rest of the province. The idea of cutting the province in two, when one part of it would remain to Colombia, while the Isthmus itself would be an independent Republic, is unacceptable. It would discourage everybody."

"But, I speak only of the first period," I retorted. "Once your independence is assured, and the Treaty is ratified, you will have 10,000,000 dollars with which you can wage war and conquer the rest of the province."

"No," he replied, "that wouldn't do."

I arose, growing impatient. "Dr. Amador," said I, "if you want to close your eyes, you will see nothing. You came on the 23rd of September in despair to ask me for support. To-day, October 13, I offer it you. If you refuse it, well and good. I have nothing more to say."

We separated coldly.

On the following day I was awakened early in the morning by two discreet knocks at the door, which I opened. It was Amador.

He was pale, and his features were haggard: "Have you slept?" he asked, by way of greeting.

"Very well!" I answered. "And you?"

"Not one second," he replied, taking a seat. "But I have been thinking, and I have discovered that I am nothing but a fool. I have understood, pardon me, I shall obey."

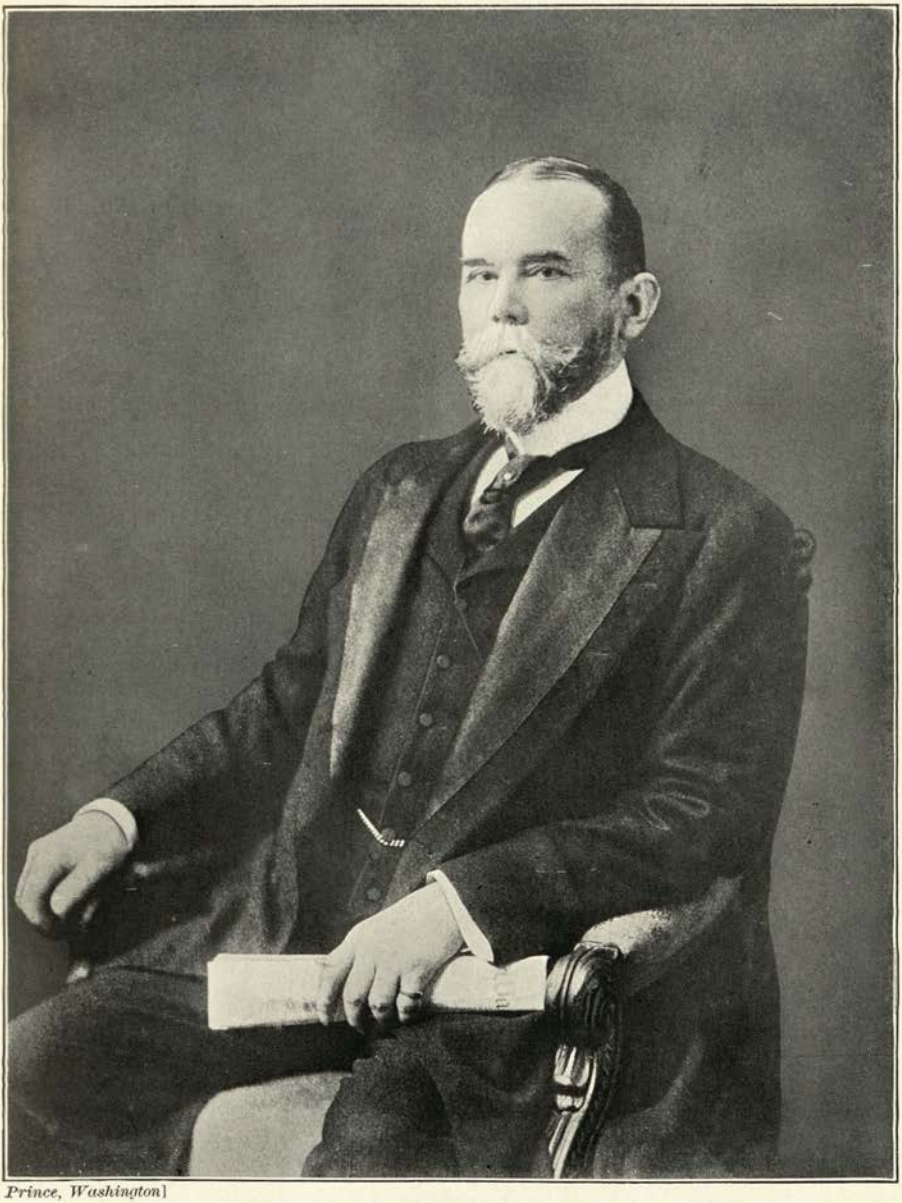
"This is what I call a sensible speech," I said. "Well, there is nothing more to be said, as you at last understand. I must go to-morrow, Tuesday, to Washington, for the inauguration of the statue of General Sherman. I am invited by his niece, Mrs. Sherman MacCallum. I will perhaps find how to complete the cycle of my information. Prepare yourself to leave by the next boat, Tuesday, October 20, for the Isthmus. On my return from Washington I will give you a precise programme of action. Now leave me, so that I can prepare it at leisure."

I wanted to be free from his presence to prepare a rational and mature plan, which I did not want to leave him the time to discuss in detail.

My Meeting with Mr. Hay, Secretary of State

I intended, in going to Washington, not only to have time for quiet thought, but also to find an opportunity of becoming acquainted with Mr. Hay.

I had met this eminent man once only, at the house of Mr. Bigelow, but I had not had the chance of speaking to him.



Prince, Washington]

THE HON. JOHN HAY, SECRETARY OF STATE

Face p. 316]

The opportunity arrived. I had gone to call on Mr. Loomis, in the State Department. Mr. Hay, whose office was next to his, entered to ask for some information. Mr. Loomis introduced me. Mr. Hay, with much courtesy, once the first compliments had been exchanged, invited me to go to his own office.

The subject of our conversation was, first, our common friendship for Mr. John Bigelow.

Our talk had scarcely begun, when the usher entered and gave a card to the Secretary of State. I remarked a certain embarrassment on his features. I intervened: "Mr. Secretary of State, I should be sorry if my unexpected presence were to interrupt your audiences. Please let me withdraw, and we will find a more convenient time to continue this conversation."

"I am, indeed, very embarrassed," answered Mr. Hay; "I want to talk with you on a subject which is giving me grave preoccupation: Panama. You certainly are better informed than ourselves. On the other hand, I have to-day to receive the Ambassadors, and it is difficult not to fulfil this other duty. It will take about one hour."

"It does not matter," I said, "I will withdraw, and it will give me great pleasure to come back when your receptions are over."

"Well, as you allow me," replied Mr. Hay, "let me send you word to fix an appointment, so that we may converse without fear of interruption."

Soon after I had reached my hotel a card from Mr. Hay was handed to me.

He invited me to go and see him—not at the State Department—but at his own house at three o'clock in the afternoon.

Such were the circumstances which permitted me to become acquainted for the first time with this many-sided and extremely able man.

I had always imagined him as severe and cold, a sort of "Iron Chancellor" of America. It was the impression given by his photographs and policy. How different he was when he had doffed his outside armour!

The constant desire of this delicate and refined mind, was to obtain by political action the improvement of the moral and physical condition of man.

He considered the United States as consecrated above all to this great task. In serving his country, as he did, with all the energy of his heart and mind, I doubt if he ever dissociated in his thoughts her interests from those of humanity.

He saw, in the opening of the Panama Canal, the greatest service which could be rendered to the human family.

As his ideas coincided rigorously with my own on this subject, a strong and reciprocal sympathy was soon established between us.

Together we deplored the blindness of Colombia.

I told him what efforts I had made to show her the truth and how they had been baffled.

"When all the counsels of Prudence and Friendship have been made in vain," I said, "there comes a moment when one has to stand still and await events."

"These events," he asked, "what do you think they will be?"

"I expressed my sentiments on the subject some days ago to President Roosevelt," I replied, "the whole thing will end in a revolution. You must take your measures, if you do not want to be taken yourself by surprise."

"Yes," said Mr. Hay, "that is unfortunately the most probable hypothesis. But we shall not be caught napping. Orders have been given to naval forces on the Pacific to sail towards the Isthmus."

The "Captain Macklin": Symbol or Password?

Our conversation then took a more general turn; we spoke of the facility with which in these countries political discontent takes a violent form.

"I have just finished reading," said Mr. Hay, "a charming novel, *Captain Macklin*. It is the history of a West Point cadet, who leaves the military academy to become a soldier of fortune in Central America. He enlists under the orders of a General, a former officer of the French army, who commands a revolutionary army in Honduras.

"The young, ambitious American, and the old French officer, who as head of the army displays in all his acts the generous disinterestedness of his race, are both charming types of searchers after the Ideal.

"Read this volume, take it with you," concluded Mr. Hay, "it will interest you," and he handed it to me.

I carried away with me from this interview, an emotion, the recollection of which will never be erased from my heart. I felt I had had the privilege of approaching one of the most noble characters it has ever been given me to know.

The course of events was only to engrave this first impression more deeply on my mind. I have never ceased to cherish for the memory of Mr. Hay an almost religious admiration.

I read *Captain Macklin*, with an interest which may be easily understood.

The chivalrous figure of the old French warrior who is the hero of the history, corresponded perfectly to the description given by

Mr. Hay. At the head of his half-wild army, in the virgin forest, he pursued undeviatingly the high aim of justice and progress.

I could not help thinking that Mr. Hay, in giving me this volume, had meant to make a subtle allusion to my own efforts in the cause of justice and progress.

Perhaps he wished to go even further ? Did he not intend thus to make me understand that he had the presentiment of the personal part I was playing, and which I had not revealed to him ? Did he not wish to tell me symbolically that he had understood that the revolution in preparation for the victory of the Idea, was taking shape under my direction ?

Never did I undertake to clear up this delicate mystery, but I always acted as if *Captain Macklin* had been the subtle symbol, the password exchanged between Mr. Hay and myself.

This password explained that which concern for our honour prevented us both from expressing verbally.

Notwithstanding Mr. Hay's Silence, I knew all

The interview with Mr. Hay would have removed my last hesitations if hesitation had been any longer possible.

The Secretary of State had not feared to say that a revolution was expected in Washington, and that the United States had taken military precautions.

They were probably the consequence of the formal assertion of opinion I had made to President Roosevelt, an assertion which the rumours current in the press entirely corroborated.

It only remained for me to act. The United States would have a sufficient military force in the neighbourhood of the Canal if the revolution broke out.

I felt no doubt as to the only question which could burden my conscience: the security of the men who were to risk their lives on my word.

What would be the destiny of the new Republic ? There was but little interest in trying to determine that in advance.

This chapter could be left to the eventualities of the future. As soon as I had become thoroughly convinced by a succession of repeated proofs, that my friends would be protected against the crushing load of the Colombian forces, my mind was free to prepare the events.

CHAPTER XXVII

THE PREPARATION, THE EXPLOSION, AND THE JUSTIFICATION OF THE REVOLUTION

As soon as I left Mr. Hay's house I hastened to take the first train for New York.

When passing through Baltimore at 7.50 in the evening I sent a telegram to Amador saying that Jones expected him on the following morning at 9.30.

I GIVE AMADOR FULL INSTRUCTIONS

At the stated hour Dr. Amador knocked at the door of Room No. 1162 of the Waldorf Astoria Hotel, which deserves to be considered as the cradle of the Panama Republic.

I had meditated during my sojourn in Washington over the precise plan of action, and I had written the necessary documents.

As I was well acquainted with the hesitating temperament of Spanish Americans, I had made it a point to have ready for Amador, before the day of sailing, all that he needed for immediate action. I had prepared the proclamation of independence, a methodical plan of the military operations, as well as the arrangements for the defence of the Isthmus to be effected within the three first days, and finally a cipher code allowing Amador and myself to correspond secretly.

The Constitution of Cuba, which had just been drawn up by men of high legal talent was to be the model for the Panama Constitution. It only remained to design the flag of the new Republic.

I had realised on my journey back from Washington that nobody was better fitted than myself rapidly to conduct the diplomatic negotiations, as no one knew better than myself the ground at once in Washington, Panama, and Bogota. I had for several years past thoroughly studied the situation in Washington. I had secured there important posts of observation which could easily be turned into centres of diplomatic action.

"Dr. Amador," said I, when he entered my room, "the moment has come to clear the deck for action. Be satisfied with my assertions. There is no more time for discussing their genesis.

"I can give you the assurance that you will be protected by the American forces forty-eight hours after you have proclaimed the new Republic in the whole Isthmus.

"Then will begin a delicate period, that of the complete recognition of the new Republic. The fight will be in Washington. I take the responsibility of it. I take also the responsibility of obtaining for you, from a bank, or of furnishing you myself, the one hundred thousand dollars which are necessary to you. But my political and financial co-operation will begin only after you have completed what is incumbent upon you: the conquest of your liberty. This is your own work. If you do not feel yourself capable of establishing, without external aid, a new Government in the Isthmus properly speaking, remain quiet and do nothing. If you believe yourself capable, follow your free judgment. When you have done your work, when you have conquered and acquired your liberty, then my part will begin, I shall work for you and with you, so that liberty may be preserved to you.

"In order to clear up your ideas I have prepared a series of documents which I shall give you as suggestions.

"You will do with them whatever you like. It is the programme of military operations, the declaration of independence, a base for the constitution of the new Republic, and finally a code with which to correspond with me.

"I repeat, the connection with me cannot, and must not, begin until you have broken your chains unaided and by your own hands.

"From that moment on, if ever the moment comes, a most important part will begin, it will consist in ensuring the permanence of the life of the entity you will have created, and its entrance into the family of Nations. This part I sincerely believe nobody is better fitted to play than myself. I venture to say that, because nobody knows better than I the final aim, which is the completion of the Canal and the best way to attain it. It will, therefore, be necessary to entrust me with the diplomatic representation of the new Republic at Washington."

Dr. Amador had been listening to my *exposé* with a glow of enthusiasm in his eyes. The flame suddenly died out when I touched the question of diplomatic representation.

This sudden change revealed to me that he had dreamed of another's filling this important post.

He tried to urge some timid objections. The self-conceit of the Isthmians, he said, would be hurt by the choice of a foreigner for their first representative abroad.

"I can easily see that," I answered, "but a supreme law must dictate our resolution. It commands us to assemble every element which may ensure final success. A battle royal will be fought at Washington. Let him wage it who is best equipped to win the victory."

"But could not a Panaman be appointed whose obedience I would guarantee?" asked Amador. "You would dictate his acts and his words."

"No, my dear Doctor," I replied, "a solution of that order is of no value when on one word, on a single act, on a single minute, may depend success or the reverse. Absolute liberty of decision and of action must be employed by him who commands. But this is only my advice. If it is not yours, or that of your friends, follow your personal inclinations. In such a case, you may still count on me to do everything in my power to help you, but at the same time I must tell you that I do not accept any responsibility if you do not follow the line providing the maximum quantity of favourable chances."

Amador had listened to me with a distressed air: "Well," he said, "I shall try to carry your point."

"Nothing remains," I added, "but to make the model of the flag. "I am going to-morrow to join my family at Highlands Falls on the Hudson at the Bigelows', and I shall find there the agile and discreet fingers that will make the new flag."

We separated. I hastened to go and buy at the nearest shop the silk necessary for making the new Standard of this Republic whose birth was to be the signal of the resurrection of the slaughtered enterprise.

I spent the rest of the day correcting and revising the documents I had prepared for Dr. Amador.

He came back in the afternoon still preoccupied by the question of the Plenipotentiary at Washington.

Evidently his mind could not adapt itself to the argument I had developed. He was powerless to dispute its forcible logic, but he could not overcome the pressure of the secret ambition of himself being this Plenipotentiary.

I inexorably maintained the necessary line of action. I could not admit that personal interest should interfere and diminish in any degree, however small, the chances of success of this difficult enterprise.

The First Model of a Flag made by Mme. Bunau-Varilla

I left the following day, Sunday, early in the morning for Highland Falls on the Hudson, to join my wife and children, who were enjoying there the delightful hospitality of the Bigelow family.

Mme. Bunau-Varilla remained in her rooms in the greatest secrecy the whole day making the flag of liberation. Besides my wife I took as a confidant, my son Étienne, then thirteen years old, in whose mind I desired to leave a trace of these dramatic moments.

On Monday it only remained to have a copy of all the documents made by a dactylograph.

A young woman totally ignorant of Spanish, and who acted in the capacity of secretary in the Bigelow family, came to New York for the purpose. She executed the work far from indiscreet eyes, in the then empty residence of the Bigelows at Gramercy Park.

On Monday I came back having everything ready. Amador came to admire the flag, which he found perfect. Its design was the same as that of the American flag. But for the white was substituted the yellow colour which characterises the Spanish and Colombian flags. Instead of white stars distributed over the blue jack were placed two yellow suns united by a band of the same colour. These suns represented the two continents as the stars in the American flag represent the States of the Union.

I knew this flag would be modified, and it was. But in Central America people are much quicker at modifying than at creating, and not a moment had to be lost after Amador's arrival on the Isthmus.

After having taken cognisance of the letter and the spirit of the instructions that I had handed him, Amador said : "Fifteen days will be necessary after my arrival in order to carry out the movement."

"What!" I exclaimed, "fifteen days! It is much simpler to say you are going to abandon everything right away. You leave to-morrow, the 20th, you arrive on the 27th. Within two days you can act."

"Yes, if I were alone," he replied, "but you do not know our friends. Conference after conference will be necessary."

"That is true," I interrupted; "but what is still more true is that Colombia has massed troops at Carthagena with General Tovar, who at any moment can disembark on the Isthmus. What is possible to-day may be impossible to-morrow. You must act as soon as you arrive. Success will be the price of rapidity and decision, as is always the case.

"Well," I said in conclusion, "I give you up to the 3rd of November as a final limit for action. If you have not accomplished the revolution on that day or before I shall consider myself free of all responsibility for further events."

"Give me at least till the 5th of November," implored Amador.

"No," I replied, "if you are not capable within seven days of doing what you declare yourself to be ready to do immediately, you demonstrate yourself incapable of winning your liberty. You had better stay where you are and what you are."

Amador left me, saying he would be back on the day following at nine in the morning. He was to stop on his way to the wharf in order to take with him what I had prepared for the liberation of his country.

I prepared before his return the cablegram he was to send me in clear language, once the Republic was proclaimed. It was the summing

up of our conditions, and drew the line definitely where Amador's action finished and mine began. It was conceived in these terms :

"The government has just been formed by popular acclamation. Its authority extends from Colon inclusive to Panama inclusive. I request you to accept the mission of Minister Plenipotentiary in order to obtain the recognition of the Republic and signature of Canal Treaty. You have full powers to appoint a banker for the Republic at New York, and to open credit for immediate urgent expenses."

I gave the text to Amador, with these words :

"So long as you are unable to send me this telegram, no responsibility is incumbent upon me. From the moment I receive this telegram my responsibility will begin. It will then be my duty immediately to send you one hundred thousand dollars and within forty-eight hours to see that protection is extended to you.

"The only dangerous period for you will be from the moment the revolution begins to forty-eight hours after the telegram is handed to me."

Amador left me to embark, after solemnly affirming his complete agreement with me as to the conditions thus stipulated.

It was at this moment 9.30 a.m., Tuesday, October 20, that the period of action began.

Some minutes later he re-opened the door. "One word more," he said, "what must I do about Obaldia ? He is now Governor of Panama. His sympathies are certainly with us. Must I disclose everything to him ? Consider my situation if I say nothing to him. He is my lifelong friend; he is my guest at this moment; he eats at my table. I am in great perplexity ! "

"Do not take him for a confidant," I replied. "Do not place Obaldia between his sympathies and his honour."

Amador closed the door and left for the steamer.

I take Measures to provide 500,000 Francs

I soon felt relieved from the tension of mind caused by the preparation of my instructions to the emissary in charge of this formidable enterprise.

I had now to think of placing myself in a condition to keep my promise with regard to the resources needed for the first days of the new Republic.

I had seven days ahead of me. My first idea had been to disclose the situation to Mr. Pierpont Morgan or to Mr. Isaac Seligman, with whom I was in personal relations.

I had written to both of these gentlemen to ask for an appointment without saying for what purpose.

When the moment arrived I saw obstacles which I had not at first perceived.

Was it likely that the representatives of such huge interests would run the risk of engaging in so dangerous an adventure ?

If the revolution was to fail the moral responsibility would be enormous for them. If it succeeded the profit would be insignificant. Would any banker ever be tempted when the alternatives are of such a nature ?

An operation of that class could be acceptable only to a second-rate bank.

But in such a case a commission would be demanded from the new Republic which would be in proportion to the risk, that is to say, very great. It would, later on, be considered as extortionate and usurious. On the other hand, in such a case what could prevent the bank from making an easy speculation in Panama securities ?

A revolutionary movement ending successfully would necessarily about treble the quotation in these securities.

What would appear to me a contemptible speculation could not fail to be considered by a second-class banker as absolutely legitimate.

And besides, if I raised the question of this eventual loan, I must necessarily disclose the secret plan. Who could guarantee that the secret would be kept ? Who could guarantee that on the same evening a telegram would not be sent to Bogota, and that Colombian troops would not be hurried to the Isthmus and land at the same time as Amador ?

All these considerations made it absolutely impracticable to contract a loan with third parties in the name of the new Republic.

I was bound by honour. I had no other alternative but to provide the funds from my personal means, and to run the risk myself of losing this important sum.

It was the only way to be assured that no indiscretion would be committed and no speculation attempted.

My resolution was made on the evening of Wednesday, the 21st of October. At 1 A.M. on the 22nd I cabled to two banks in Europe which held securities for me, asking each of them to loan me fifty thousand dollars. I requested them, in case they should agree to my request, to remit this sum immediately to the Branch Office "B" of the Crédit Lyonnais. This Branch Office was accustomed to make cable transfers for me during my sojourns in America, when I needed money for travelling expenses.

One cannot but admire the extraordinary elasticity of the financial mechanism of our days.

I delivered my two cablegrams at the telegraph office on Thursday at 1 A.M., going to bed immediately afterwards. I was

awakened at 8 o'clock by a servant, who brought the first answer. At 11 o'clock the second one arrived. All was settled. The hundred thousand dollars had been sent to the Branch Office " B," where I could dispose of them at will.

I had but to give the order for transferring them by cable to New York, which order was given the Sunday following. Before Amador arrived on the Isthmus I had at my disposal in New York one hundred thousand dollars at the Bank Heidelbach, Ickelheimer & Co. I was ready.

This question once settled and, everything being therefore accomplished by Thursday morning, the 22nd of October, I had nothing more to do, but await events.

The Colombian General Tovar Providentially Late

I need not say with what anxiety every morning and evening I opened the newspapers.

The fate of the Panama Canal depended upon the movements of the Colombian troops concentrated at Carthagena.

On the 26th of October, I read in a newspaper with indescribable joy the following lines :

" Barranquilla (a Colombian port on the Atlantic, close to Carthagena), announces that General Tovar, who was expected to leave soon (for the Isthmus), may not do so before the beginning of November. He has received the order to make a report on the condition of the artillery of the forts at Barranquilla, Puerto Colombia, Carthagena, and the harbours of the Atlantic."

On the other hand, on the previous day, October 25, the *New York Sun* had published a telegram from Philadelphia, which had for me an extreme significance. It announced that the cruiser *Dixie* had sailed with sealed orders, taking with her 400 marines.

Three days later the papers printed a despatch from Washington, which was published among others in the *New York Times* on the 28th of October, announcing that the *Dixie* was to arrive at Guantanamo, Cuba. The despatch added that in case of a revolution in the Isthmus the *Dixie* would be sent to Colon.

Another paper said, that the marines would be landed on the Isthmus to maintain order along the line of interoceanic communication. The same despatch announced that another cruiser, the *Nashville*, was at Kingston, Jamaica.

Evidently the movements of Amador had been watched, and his departure for the Isthmus after his conference with me had raised suspicions of an early explosion of the revolution after the Colombian Congress had closed its session.

The sending of the *Dixie* to Guantanamo showed the preoccupation

of the American Government. It did not disguise the preoccupation in its communications to the press. Does not this simple fact in itself give the lie to the absurd and prejudiced story of a revolution organised by the United States Government ?

They had probably at Washington associated in their minds the departure of Amador and the prediction I had formulated in my interview with President Roosevelt on the 9th of October and with Mr. Hay on the 16th as to the imminent peril of a revolution. The conclusion which must have been reached was that the departure of Amador after his interviews with me was the beginning of revolutionary operations.

Mr. Hay had remembered my warning as to the danger of the United States being taken by surprise by a sudden revolution. He had certainly issued the orders to have troops ready as soon as Amador had left. The *Nashville* was mounting guard at Kingston for the obvious purpose of flying to the Isthmus at first call.

The intentions of the American Government were luminously shown by the whole set of facts.

Thus were rigorously confirmed all my anterior inductions.

Positively everything was working out with admirable precision and in accordance with my logical reasoning.

Amador had nothing more to do but to set fire to the fusee before the arrival of the Colombian troops, and Panama was saved. To be still more certain I went to spend the 27th at Washington. I heard nothing to give me a fresh indication. It was the very day that Amador was landing at Colon.

Amador's Cryptic Telegram : I interpret it

On the 27th and 28th of October, Amador gave no sign. There was nothing astonishing in that. I expected the great news on the 29th. Instead of receiving it, the following cablegram was handed to me at 9.45 in the morning :

"Tower, *New York—Fate news bad powerful tiger. Urge vapor Colon.*—Smith."

The address, "Tower, New York," was that of M. Lindo, the friend of Amador, who had sent him to me to ask for my support as soon as I arrived in September.

He had undertaken to transmit the telegraphic secret correspondence between Amador and myself. But he was ignorant of their contents, which alone the conventional code I had given to Amador could explain. In that way the despatches could pass without attracting

the attention of the Colombian authorities. I deciphered with stupefaction the first words :

Fate.—This cable is for M. Bunau-Varilla.
News.—Colombian troops arriving.
Bad.—Atlantic.
Powerful.—Five days.
Tiger.—More than 200.

None of the words which followed in the despatch : *Urge vapor Colon*, were in the code. It was, therefore, necessary to take their meaning in Spanish. It was : *Press steamer Colon.*

The signature, " Smith," meant Amador.

The beginning of the despatch was perfectly clear. Amador announced the arrival within five days of 200 Colombian soldiers on the Atlantic side, that is on the 2nd or 3rd of November. But what was the signification of the rest : *Press steamer Colon.*

Nothing in my instructions to Amador referred to anything of the sort. The fact that these words were in plain language established that they did not refer to anything previously agreed.

Suddenly light dawned in my mind.

I saw clearly the scene which had given birth to this curious and inexplicable message.

Amador had left the Isthmus, when everybody was under the sway of the illusions created by the foolish and unrealisable promises which Beers had said had been made to him by Cromwell. He and his friends were firmly convinced that he was going to be introduced by Cromwell to the Secretary of State, and that he was going to sign with him a regular convention. Everybody expected Amador to bring a veritable treaty vouching for the support of the American forces and the payment of six million dollars.

This fairy tale must have, like all prolonged chimeras, been gradually transformed into a firm belief.

Instead of bringing this treaty, Amador returned with only the verbal assertion of a private individual.

To be sure every one of Amador's associates had known that person for a long time. To be sure they had complete faith in his word. But between believing in somebody's word and risking one's life because of such belief there is an enormous difference.

To overcome their resistance, Amador must have assured them that I was the spokesman of the American Government. Probably he had even persuaded himself of that nonsense. Had he not said to me with a mysterious air : " Who has suggested this to you ? " on the day following my disclosure to him of my scheme of a Republic limited to the Isthmus proper ?

When, therefore, he tried to persuade the reluctant confederates, one

of them must have risen and said: "If Bunau-Varilla is so powerful, let him prove it. He says we shall be protected forty-eight hours after establishing the new Republic. Well? we will believe him, if he is capable of sending an American man of war to Colon at our request."

This was obviously the interpretation of an otherwise incomprehensible cablegram. The more I considered the solution the more certain I felt that it was the right one.

It was not information which was transmitted to me, it was a test to which I was being submitted.

I knew later on through M. Carlos Arosemena, one of the confederates, who afterwards became my Secretary of Legation and remained my friend, that this interpretation was rigorously true.

The arrival of the 200 Colombian soldiers was imaginary, and yet, by an extraordinary coincidence, this arrival did take place on the very date announced, November 3rd, as will be seen later on.

As soon as I understood the signification of the mysterious telegram, I realised that it was incumbent upon me to fire the fusee. Amador had failed. It remained for me to set the machine in motion.

A Man of War, a Man of War! or the Canal is forever lost

The whole question of the life or death of the Canal was condensed in the following words: "An American man of war must be sent to Colon."

If I succeeded in this task the Canal was saved. If I failed it was lost.

After so many turns and twists of destiny the problem of its preservation was henceforth concentrated on this sole point.

I could just as well think over it in the train as in my own room.

If I could find the solution between New York and Washington, I could act immediately on arrival there. Without further reflection I seized my valise and hurried to take the next train to Washington. When I arrived my plan was settled.

It was based on information that had appeared in the papers during the preceding days. Did they not say that the *Dixie* had brought troops to Guantamano in view of possible disturbance on the Isthmus? Did they not say that the *Nashville* was at Kingston? Evidently the Government was ready to land troops on the Isthmus. It was ready to fulfil once more its police duty, and to maintain order for the free circulation of the trains, as the Treaty of 1846 compelled it to do.

It was only necessary, therefore, to exert very slight pressure in

order to make the scale incline to the good side. It would suffice to bring the American Government to understand that its duty was to send immediately a cruiser in anticipation of probable events, rather than to wait for their explosion.

I had soon found the way to exert this slight pressure. I had received the news of the arrival of Colombian troops for the 2nd or 3rd of November.

I had a right to point out the possibility or even the probability of a conflict when they should land.

I had the right to recall that a conflagration in a town built of wood is the inevitable consequence of an armed conflict.

I had the right to cite the historic example which I had witnessed in April 1885, of the destruction of Colon in just such conditions.

I had the right to say that I had also been a witness of the dire criticism to which Captain Kean, the commander of the *Galena*, had been subjected by American opinion for his inactivity. The American man of war, the *Galena*, was at the time in Colon waters. Her Commander, Kean, had abstained from any attempt to prevent the fight, and had been violently attacked for his abstention.

When I left the train I had in my head the clear and decisive formula out of which would naturally result the action of the American Government and the despatch of the nearest boat.

Everybody I met asked me the question : " What is going to happen at Panama ? " I repeatedly answered : " Remember the date of November 3, 1903. That day will behold a repetition of what happened there on the 1st of April, 1885.

" The armed conflict which will be the cause of it is expected everywhere. It is spoken of publicly in the press. The only difference between 1885 and 1903 is that the blame will not be attributed to the captain of a man of war in the waters of Colon. It will rest on the Government of the United States itself. President Cleveland had sent a man of war, the *Galena*, which did not manage to interfere in time. To-morrow the disaster will be imputed to President Roosevelt for not having taken the slightest preventive measure. He will not have sent even a little cruiser."

I repeated this formula to all the friends I met. Of course according to circumstances I moderated its expression without dulling its point.

I went to call on Mr. Loomis in his own house, but I naturally suppressed everything referring to the eventual responsibilities of the Government of which he was a member.

Mr. Loomis was too acute an observer not to draw the conclusion himself. I understood, by the particular gravity of his expression, that the parable had struck home and that he clearly understood the imminence of a fresh and unexpected peril.

On the following day I was preparing to leave Washington before noon. To kill time I went out for a walk, uncertain as to the wisdom of paying a visit to Mr. Hay himself or not. My lucky star brought me face to face with Mr. Loomis near the White House.

"I have thought over what you said to me yesterday," said he; "this situation is really fraught with peril for the town of Colon. It would be deplorable if the catastrophe of 1885 were to be renewed to-day. If you have any news, please communicate it to me."

This request was to remain without results. I wrote to Mr. Loomis during the following days, but merely to tell him that I had no further news than had already been published in the press.

I took leave of him. There was no longer any need of seeing Mr. Hay. The words I had heard could have but one interpretation: "A cruiser has been sent to Colon." This cruiser could only be the one stationed nearest to the Isthmus, the *Nashville*. She was at Kingston, at a distance of about 500 geographical miles from Colon. She was a little boat of ten knots an hour. Within two days she would cover the distance. Adding twelve hours for preparations she would reach the Isthmus within two and a half days.

I CABLE TO PANAMA ON OCTOBER 30, THAT THE MAN OF WAR IS COMING

I left Washington at 11 o'clock for New York, and I quitted the train at Baltimore.

I went straight to the telegraph office and sent the following cablegram:

"PIZALDO,—*Panama.*

"All—right—will—reach—ton—and—half—obscure.—JONES."

The signification was:

"PIZA NEPHEWS [commercial firm of M. Lindo].

"*Panama.*

"All—right—will—reach—two days—and—half—This cablegram is for Amador.—BUNAU-VARILLA."

In sending this cablegram I was certain it would produce no effect if the man of war did not arrive.

If contrary to my rationally established conviction the American Government should take no measure of precaution, no evil could result from my cablegram.

Nothing would take place so long as the boat did not appear. But if the American Government had really decided not to remain inert, confronted as it was by the clear and obvious duty dictated by circumstances, then the revolution was made.

The revolution was made because the connection between the request of a boat to me and the arrival of the boat materialised in the eyes of the confederates the reality of the influence which Amador had asserted to them I possessed over the American Government.

Evidently they imagined the situation to be quite different from what it really was. They believed this influence to be of a direct and material order. They could not understand matters as they really were. They could not imagine that there was no material influence exerted, and that I was merely correctly and mathematically calculating the forces at play, among which the main ones were the duty and the interest of the American Government.

The despatch which was at last to fire the slow match, and thus determine the explosion on the Isthmus, was handed in at the Central Telegraph Office at Baltimore at ten minutes past noon on October 30, 1903.

As the despatch arrived on the evening of the same day, the confederates, counting two days and a half from that hour, could expect the man of war on the morning of the 2nd of November.

I left Baltimore and arrived in the evening in New York. I found there a new cablegram from Panama announcing the arrival of the Colombian forces on the Pacific side for ten days later. I was asked at the end when the ship would arrive at Colon.

This despatch, delivered in New York at 7.10 in the evening, had evidently left Panama before the arrival of my despatch from Baltimore.

To this second question I answered as to the first one, relying on my mathematical calculation as to the probable course of events.

I calculated what would be the likely date of the arrival of the naval forces, which Mr. Hay had told me on the 16th of October had been ordered to leave for the Isthmus on the Pacific side. A telegram to the *Evening Post* of October 22 had announced the departure of the *Marblehead* and of the *Mohican* for a cruise in southern waters.

Their true destination was evidently that to which Mr. Hay had alluded.

As it is about 3000 miles from San Francisco to Panama, the distance at ten knots an hour could be covered in twelve or thirteen days. The ships could arrive towards the 3rd or 4th of November.

Taking these calculations as a basis I wired that within four days there would be American ships on the Pacific, and within two days on the Atlantic side.

I had reduced from two and a half days to two days the period indicated in my telegram from Baltimore, because more than nine hours had passed between the first and second despatches.

Thus was fixed on the day of the 30th the plan of future events.

Reply to the Criticisms of Rational Diplomacy

Some people will perhaps criticise me for having thus announced future facts without possessing greater material certainty and in relying merely on logical conjectures.

My only reply to such critics is that they have not the slightest idea of scientific methods.

I built all this subtle diplomatic structure as a bridge is built: that is, by calculating its various elements, and not by trying to obtain direct information which it would have been impossible to obtain.

The abstract operations of trigonometry lead to results more certain than physical measurements, when both operations are possible, but in the majority of cases trigonometry alone can be used. I have made diplomacy as it were by trigonometry.

Such a method will without doubt seem incomprehensible to many minds.

To such I may reply that they are incapable of rising to the conception of a work such as that of Panama. They will never grasp the new processes which its realisation will have made necessary in all the orders of mental activity. One may say to them what Pascal said to those who, wanting in the mathematical mind, discussed with him the infinitely small: "Adopt other professions. There are many such in which your mind could be useful. But for heaven's sake do not exhaust yourself in trying to penetrate an order of ideas in which you will lose your time, and where your efforts will be futile."

The Newspapers announce on the Morrow the Departure of the "Nashville"

On the following day, that is to say, on November 1, 1903, a despatch which rigorously verified my induction, was published in the *New York Times*. The paper printed it under the title—

"*Nashville sailed—for Colombia?*"

It read:

"*Kingston, Jamaica,* 31*st Oct.*

"The American cruiser *Nashville* left this morning with sealed orders. Her destination is believed to be Colombia."

The *Nashville* had left in the morning of October 31. With her speed of ten knots, she was therefore due to arrive on the morning of November 2.

My prevision ought consequently to have become a reality, but things did not happen quite so exactly. It was in the evening—not in

the morning, of November 2, that the *Nashville* dropped anchor in the harbour of Colon.

I waited until the 2nd of November, and then I sent to Dr. Amador a telegram containing only the one word : " Boy."

It meant : " Nothing has happened which requires modification."

This was my final communication to tell him that the route was open, and that I did not perceive any obstacle.

The Man of War Liberator : Ship arrives, Tovar follows

The 2nd of November passed without any news. On the third day expired the last day of the period of one week which I had fixed for the revolution, after the arrival of Amador at Panama.

Deeply disturbed by this silence I went on the morning of the 3rd to the offices of M. Lindo. I wanted to prepare with his ordinary code a despatch which my conventional code did not allow me to send on account of its incompleteness. I wished to make a supreme appeal to the energy and courage of the people of the Isthmus. I had great difficulty in composing this despatch with a code adapted only to commercial operations.

As I left the building to go to the telegraph office, a newsboy ran up to me and offered me the *Evening Telegram*. I bought it, and cast a glance at it.

It announced the landing of General Tovar, and of the Colombian troops the very same morning at Colon, as well as the arrival on the previous evening of the *Nashville*. Nothing more—not a word of the slightest revolutionary movement.

Everything seemed to be irretrievably lost.

I destroyed the despatch I had prepared. I returned to the Waldorf Astoria, heartbroken and in a state of complete despair. For the first time in my life I felt that the enterprise of Panama was for ever dead.

It was the supreme test of Destiny, for it was just at this very moment that the Phœnix was arising from its own ashes.

I spent the whole afternoon in a state of profound dejection. My dear wife tried to comfort and encourage me in this infinite sorrow. Finally, she prevailed on me to dominate my grief and to go with her to dine at Mr. John Bigelow's, where we had accepted an invitation.

Everything appeared to be lost : Everything is saved

When I returned to the Waldorf Astoria at about 10 o'clock that evening a telegram was handed to me. It was in plain language, and signed by Amador. It ran thus :

"*Proclamada Independencia del Istmo sin sangre.*—AMADOR." [1]

The life of the great undertaking had been saved at the very moment when it seemed to be destroyed for ever.

What had taken place ?

The rumour of the arrival of the American man of war that I had announced had promptly leaked out and spread all over the Isthmus.

From the morning of the 2nd November, all the inhabitants of Colon were looking towards Kingston, hoping for the appearance of the ship symbolising American protection.

As the hours passed disappointment gradually invaded all hearts.

Towards nightfall despair was general, when suddenly a light smoke arose in the direction of the north-east.

This was a ray of hope ! If it were the liberator ?

Little by little the smoke thickened, the ship emerged above the horizon and soon the Star-Spangled Banner dominated the Bay of Colon.

A burst of delirious enthusiasm shook the whole Isthmus.

It was really true ! Bunau-Varilla had effectively obtained for the unfortunate country the protection of the powerful Republic !

At this moment without one word having been uttered the Revolution was accomplished in the hearts of all. The *régime* of Colombian tyranny was over !

The people were so intoxicated with joy, that serious business was postponed until the following day.

Instead of supplying the wharves of Colon with an armed force to prevent a possible landing of the Colombian troops, nothing was done.

This would have entailed the immediate interference of the American cruiser, and prevented a landing which would have provoked disorder. But the confederates had forgotten this detail in their blind happiness.

It happened that this arrival of the Colombian troops, which they had invented in order to justify the despatch, *Press steamer Colon*, took place the very same day they had announced.

In the morning of the 3rd November, General Tovar arrived quietly with about 500 soldiers.

It was the news which the *Evening Telegram* had brought to me.

This unexpected event awoke the confederates. The employees of the Panama Railroad availed themselves of various technical pretexts to delay the formation of a special train required for the troops.

General Tovar took the train for Panama, leaving his troops behind him at Colon.

Meanwhile the patriotic excitement determined by the arrival of

[1] "Independence of the Isthmus proclaimed without bloodshed.—AMADOR."

the *Nashville* was steadily gaining on the entire population as well as the garrison of Panama.

The aged Dr. Amador gave the example. He went to the barracks, and started the whole movement by having General Tovar and his officers arrested by General Huertas, Commander of the Panama garrison.

The Independent Republic of Panama was immediately proclaimed.

The revolution had been made without shedding a drop of blood. It was due to the unanimous explosion of a whole nation, which refused to be stifled by the policy of Bogota.

But as it happens with nations depressed by long military oppression this explosion had taken place only when the people felt they were no longer alone.

This revolution, which it would have been so easy to accomplish from the 27th of October, when there were no obstacles in the way, was accomplished in face of the dreaded troops of the tyrant.

If these troops had arrived twenty-four hours earlier nobody would have made a move.

But they had landed twelve hours after the symbolic arrival of the *Nashville* had fired in all hearts the spark of hope, and thus restored general self-confidence. People had seen therein the extended hand of the powerful neighbour Republic. And this proof of friendship had made all hearts beat more quickly and raised everybody's courage.

The Republic of Panama had therefore been born; and it had sprung from a legitimate revolt against the most intolerable oppression.

The Revolution was not fomented by the United States

Colombia can say to-day that the Republic of Panama was born owing to American protection. This is true if the word protection is understood as expressing solidarity between the mighty and the weak in the defence of common and legitimate interests. It was not born from a conspiracy fomented by the American authorities. It developed out of the simultaneous and parallel, but distinct, movement in two separate spheres of the same aspiration, the completion of the Panama Canal. Every one remained in his proper place and acted his legitimate part.

Mr. Roosevelt avoided, during the first revolutionary attempts anything which could resemble collusion. The abandonment of Amador, by those who had promised him everything is the obvious demonstration that the American Government had refused to lend itself to anything of a compromising character.

The action of President Roosevelt was as correct as it was active and resolute.

Colombia can brandish her titles of property over the Isthmus. Her claim is that of Shylock asking for the pound of flesh. The title of Shylock was also perfectly well established, but his claim was untenable.

The claim of Colombia is, and will remain, untenable, because she herself forfeited her right by her policy.

Her rights challenged superior rights: the right of a nation to exist; the right of humanity to circulate.

She violated the very basis of her sovereign rights, namely, the duty of the sovereign to protect his subjects.

With a stroke of the pen she condemned the whole of the population of one of her provinces to destruction.

With a stroke of the pen she challenged the whole of humanity which had a pre-eminent right of way across the Isthmus.

With a stroke of the pen she cynically announced her will to confiscate from the French share and bond holders all that still remained from the wreck of the great enterprise.

With a stroke of the pen she disavowed her contract for the extension of the term of the French concession, on the pretext that certain formalities had not been fulfilled, whereas through her own fault, it was a physical impossibility to fulfil them.

These are the violations of superior rights which made the revolution of Panama the most legitimate of protests against tyranny.

These are the violations of superior rights which vitiate the protests of Colombia, as the very object of the contract of Shylock vitiated his claim for its judicial execution.

Europe learns the Predatory Policy of Bogota

It is not sufficient that a thing be true, it must also be recognised as true.

The knowledge of the legitimacy of the Isthmian upheaval could not be restricted to those concerned. It fell upon me to enlighten universal sentiment by revealing the veritable origin of this event.

To that end it was sufficient that a great organ of public opinion on each side of the Atlantic should clearly expose these causes. Such a statement of the real facts was bound to generate that current of general sympathy which accompanied and sustained the first steps of the new Republic.

I telegraphed to *Le Matin* the following despatch, which was published the following day with favourable commentaries:

"New York special despatch of *Le Matin*.

"It appears from news received from Bogota that the rejection of the Canal treaty was suggested with the felonious object of appropriating to

Colombia the property of the Canal Company. They wished to declare the forfeiture of the Company, either by refusing to ratify, as being unconstitutional, the extension of the term of the Concession granted from 1904 to 1910; or by obliging the Company to stop work for want of money, which would entail the forfeiture.

"These piratical plans have been amply demonstrated by a Bill of August 29 last, signed by General Nel Ospina on behalf of the conciliatory and moderate elements at Bogota, in which he asks for the bestowal of plenary powers on the President for conclusion of a treaty with the United States, on condition that the Canal Company should pay $10,000,000 to Colombia. Such a proposition is equivalent to the insertion in a law of blackmail and extortion."

The *Matin* added a commentary to this telegram of which I give an extract:

"It results very clearly from this despatch that the Colombian Government is trying to dispossess the actual concessionaries of the Panama Canal of their rights. The nature of these rights cannot be doubted for a moment. . . .

"Though the rights of the actual concessionaries were incontestable, Colombia pretends to challenge them and not to extend the term of the concession beyond 1904. The motive is easily conceivable. The United States have contracted to pay $40,000,000 to the Interoceanic Canal Company, that is to French citizens. If Colombia can spoliate them of their rights, she and not they will cash the $40,000,000. Consequently she tries to appropriate to herself our rights.

"It remains to be seen whether she will succeed and whether our Government will tolerate, that, in contradiction with the contract made and the stipulations accepted, a Republic should, with impunity, take a sum of money which is by right money belonging to our saving classes who have already been subjected in this affair to a sufficiently severe ordeal."

America learns the Predatory Policy of Bogota

After thus having informed European opinion, it was necessary that American opinion should be equally enlightened.

There it was dangerous to accelerate the movement. A rapid exchange of telegrams might provoke fears in Colombia and lead to a premature landing of Colombian troops on the Isthmus.

I resolved to act only at the very last moment.

On the 1st of November, 1903, I called on the chief editor of the *Sun*, my friend Mr. Edward P. Mitchell, that brilliant journalist who gave to this newspaper its great prominence.

I explained to him the tortuous and sordid politics of Colombia and the necessity of informing the public as soon as possible.

"I am going to do so immediately after the elections. They take place on the 3rd. Until November 5 public attention will be centred on interior politics. It is useless to speak of anything else."

I could make no objection to that; all arguments were useless if I did not disclose the reason for extreme urgency.

Edward P. Mitchell is the most open-minded of men. I decided to speak:

"On the 5th," I said, "it will be too late."

"Why?" he asked, astonished.

"Because," I replied in a low tone and pressing his hand, "because on that day Colombian tyranny will have ceased to exist as well as the Colombian sovereignty on the Isthmus. I beg you most pressingly to tell the United States before the event, that is to say to-morrow, at the latest, why it takes place."

Edward P. Mitchell turned pale and remained for some moments speechless.

He gripped my hand and replied in a voice full of emotion:

"The article shall appear to-morrow."

On the day following, November 2, was published the admirable article of which I give the following extracts.

"COLOMBIA BEFORE THE WORLD TO-DAY

"The Congress at Bogota adjourned on Saturday without having ratified the Canal Treaty negotiated by the Colombian Government with ours. The end of the session opens no hopeful path toward an agreement hereafter, with these same politicians or their successors. As all the world knows, the terms of compensation offered by the United States in the Treaty were liberal beyond precedent; the contemptuous rejection of these terms by the Congress, after their acceptance as satisfactory by the representatives of Colombia in the preliminary process, has had no explanation that is respectable, and but one explanation that is credible. That is blackmail; attempted blackmail of the French owners of the canal property, because it was believed at Bogota that they would submit rather than lose the opportunity to sell for forty millions; attempted blackmail of the United States, because it was believed at Bogota that this rich and enterprising nation would pay to the very limit of tropical avarice rather than give up its project or take the alternative of the vastly inferior route through Nicaragua.

"A demonstration of all this is found in the Project of Law reported on August 29, by the Senate Committee consisting of PEDRO NEL OSPINA, MANUEL MARIA RODRIGUEZ, and LUIS F. CAMPO. This Law was proposed, not by the extremists, but by the most conciliatory element at Bogota. The circumstances that such is its origin is highly significant. The Committee's report makes an eloquent plea in favour of the Canal, dwells on its importance to Colombia in her remoter territory as well as on the Isthmus itself, and then launches the Project of Law, with its cold, deliberate, impudent proposal of blackmail pure and simple! . . . .

"The attitude of Colombia as an obstructionist for extortion is the same toward the whole civilised world as it is toward the United States in particular. That Government is trying to block the mightiest enterprise ever undertaken for the common benefit of the globe's commerce. Colombia's duty to the world is repudiated along with her obligations to the United States. She is neither entitled to the sympathy and moral support of any great power, nor likely to receive such sympathy and support.

"Her hand with the small pistol in it is raised now against all commerce,

all progress, all the splendid future that the century just beginning has in store in the way of world development. This mercenary defiance will be tolerated in no quarter whence sympathy and moral support come effectively. The interest of France, of Great Britain, of Germany, of Russia, of Italy, of every maritime nation, even of the Asiatic powers on the other side of the globe, are attacked when Colombia plants herself defiantly in the way of the United States across the Isthmus. There is no rival project of canal-building upon which she can count for co-operation, moral or material. Everywhere it is comprehended to-day that the only canal possible between the Atlantic and Pacific is a canal constructed, operated, and controlled by the principal American republic.

"Sovereignty has its rights of use, but these are not always rights of abuse. There is a more enlightened understanding of the responsibilities that go with sovereignty and a revised policy concerning the same on the part of nations. When the sovereignty is, as we have remarked, scarcely more than nominal, when the defiance adds mercenary impudence to ingratitude and violates public policy in general, including the natural rights of the people directly interested, in this case the people of the Isthmian territory loosely attached to the rest of Colombia, the abuser of sovereignty has already done about as much as weakness can do to forfeit the friendly consideration of the United States Government."

This admirable article was the moral programme of action of the United States and of all the civilised countries confronted by the sordid policy of Bogota. It laid down the right for the United States to protect the spontaneous movement of those who sought safety from the crushing measures taken at Bogota.

Shylock disappointed by the Irreproachable Attitude of the United States

The politicians of the high Andine table-lands had quietly prepared these measures without even thinking of the people of Panama. The latter had the right to protect themselves against the annihilation to which, passionately impelled by avarice, their natural protectors had light-heartedly condemned them.

To-day Colombia is still trying to move the sentiments of the world as to an alleged violation of her rights.

The apparently logical demonstrations on her behalf, affecting a mathematical shape which are issued from time to time in some secret political interest, by those who even now are enraged at the construction of the Canal, are mere sophistries.

They belong to the same class as the juridical lamentations of the defenders of Shylock's contract. Their authors ignore the fact that there is no right that justifies blackmail; that there is no right that justifies the destruction of a whole province; that there is no right that justifies the voluntary obstruction of the peaceful progress of humanity. Such partisans of Colombia are just like the defenders of Shylock, who

forgot that there is no right which justifies a creditor in demanding the pound of flesh of his debtor as a compensation for the unpaid loan.

The government of Mr. Roosevelt would have had the moral right publicly to tear up its agreements with Colombia, owing to the intolerable abuse she was making of them.

It had the good fortune to escape this necessity, which the domestic policy of the United States would have most probably prevented it from realising. It was able to dispense justice, while keeping rigorously within the limits of its international obligations, thanks to the courageous determination of the people of Panama.

On the evening of the 3rd of November, when the despatch from Amador reached me announcing the explosion of the long-expected revolution, President Roosevelt was free to act and his action was untrammelled. He was hampered by no secret intrigues with the confederates.

He took Panama, as he said later, because Panama offered herself and because he was at liberty morally to accept the offer.

The liberty of which Mr. Roosevelt was to make such fruitful and brilliant use was as complete as possible.

The entire flood of prejudiced falsehoods which tried to give credence to the story of a Revolution engineered secretly by the money and intrigues of the American Government, has beaten in vain against the walls of Truth. For nine years not a stone has fallen from that wall and not one single stone will ever fall from it.

CHAPTER XXVIII

HESITATIONS FOLLOWING ON LIBERATION

On the 3rd of November, 1903, the Republic of Panama was born, and the opinion of the universe had been apprised from what a reaction of justice against injustice that Revolution had sprung.

The Events had been determined by an Illusion

Unfortunately the telegram which brought me the news was not the conventional one which I had given to Amador as he was leaving for the Isthmus.

Instead of following the clear and well-defined path I had traced the confederates had lost precious time. The movement, instead of being unanimous, had taken place only in Panama. Colon was occupied by Colombian forces, and at that point nothing had been done.

The Colombians had merely to remain quiet in Colon; nothing could dislodge them. Even an attack was no longer possible, as the *Nashville* was at Colon, and would prevent any conflict, whatever might be its origin. The situation, therefore, seemed inextricable; yet it was solved, as will be seen later on, by the unanimous but erroneous interpretation put upon the arrival of the *Nashville*. Everyone interpreted the *Nashville's* arrival as a determined intervention of the United States, and the Colombians were just as much persuaded of this as were the people of Panama. This carried to such a pitch the enthusiasm of the latter, and the discouragement of the former, that the Colombians decided to withdraw peacefully.

Error had delayed the birth of the Republic. By way of compensation Error determined its formation, and Error also preserved it from destruction at its very origin.

It shows that in human action logic and forethought are not the sole and unique factors. Man progresses slowly and spasmodically, as if he were staggering toward the goal, which wisdom alone should suffice to show him! But contradictory errors neutralise each other, and he attains his object. He arrives behind time, but he arrives.

The history of the explosion of the revolution and of its immediate

consequences is, on a reduced scale, the history of the Canal itself. The end was reached, but after how many futile windings caused by the ignorance and stupidity of man.

My First Semi-official Application at Washington

As soon as I received Amador's despatch announcing the revolution, I hastened to answer him in these terms :

"I hail with emotion the birth of a Republic, small in extent but great in the part she will play in the universe.

"I hail with respect the patriotism of its founders, the courage of its sons.—Philippe Bunau-Varilla."

After sending this telegram at 11.45 P.M. I hastened to take a night train for Washington.

I desired to drop as soon as possible the reserve which I had hitherto maintained towards the American Government and to notify to the Secretary of State, Mr. Hay, that I was the spokesman of the new Republic.

On the following morning Wednesday, November 4, I made my first semi-official call on the Department of State.

In the absence of Mr. Hay I paid a visit to the Assistant Secretary, Mr. Loomis.

"I come," I said, "no longer as a friend, but as the—for the moment semi-official, to-morrow official—delegate of the Republic which was born yesterday at Panama."

In spite of his customary attitude of reserve it seemed to me as if the news did not cause Mr. Loomis any great surprise. I proceeded :

"The object of my first application is to attract to the new Republic the good-will of the American Government. Such an attitude is justified by the aim of the founders of the new Republic, which is to ensure the realisation of the Interoceanic Canal in conformity with the wishes of the American Congress."

"The situation," answered Mr. Loomis, "seems to be very confused. Colon is in the hands of the Colombian Government. Panama obeys the provisional Government. It is necessary that this confusion should cease. In any case no armed conflict will be tolerated on any point along the line of transit. Provided the new Government takes no step contrary to the interests and to the duties of the American Government you may be assured that its acts will be regarded with benevolence."

"It is very well not to tolerate any conflict, but you have merely the *Nashville* to prevent it," I replied.

"That is true," answered the Assistant Secretary of State, "but considerable forces are within a short distance and within four or five

days, we shall dispose of all that will be necessary on both sides of the Isthmus."

When I left Mr. Loomis I was certain that the news of the Isthmian upheaval had been received with sympathy. But I had been made to understand that no outward sign would be given so long as Colon remained in the hands of the Colombians.

I likewise concluded from this interview that the American ships on the Pacific side would reach Panama two or three days later than I had calculated, and had wired to Panama on the 31st of October.

As soon as I returned to my hotel I composed the following cablegram which I gave to the telegraph office the 4th of November at 10.50 A.M.

"AMADOR,
"*Panama.*

"Aphrodisio	Try to put the hand on
Colon	Colon
but	but
if	if
agazapados	you cannot take
aphidian	hold firm now
statu quo	statu quo
heavy	four days
or	or
powerful	five days
ancaesis	execute
program	programme
brixianum	great expeditions
arriving	arriving
both	both
sides	sides
apatelies	give guarantee immediately

"BUNAU-VARILLA."

I had thus done what was necessary in sending from Washington both an encouragement to action and promises of protection if they did not succeed in taking Colon. I left immediately afterwards for New York, as I expected other despatches.

STRANGE TELEGRAM FROM AMADOR ON THE MORROW OF THE REVOLUTION

I arrived at six o'clock, and received the visit of M. Lindo. He showed me a telegram from Amador in cypher, which translated meant as follows:

"This despatch is for Bunau-Varilla—ask pressingly Bunau-Varilla 100,000 pesos—town was bombarded to-night by Bogota—urge ships Pacific."

This cablegram puzzled me. It corresponded to none of my

instructions to Amador. I was to advance money to the Republic only after the establishment of its sovereignty from Colon to Panama:

I was deeply perplexed when M. Lindo suddenly said:

"You are perfectly right. Amador showed me before sailing the cablegram he was to send you. The circumstances are completely different. They have not established the new Republic on the two seas. They have said nothing to you as to your diplomatic mission. You are not bound to do anything. This is perfectly true in law and in honour."

After reflecting for some moments I said: "This is true, but a new situation has been created. They may have an urgent need of money for the first days of the life of the Republic. It may be in order to pay for the repatriation of the Colombian troops. They ask for 100,000 pesos. It seems to me a pretty large sum; I will send them half of it."

I gave at the same time the order to M. Lindo to send on the following day to the Provisional Government $25,000, which amounted to about 50,000 pesos. I gave him simultaneously an order on my bankers, Heidelbach, Ickelheimer & Co., to cash this sum the next day.

On the morrow, Thursday, November 5, at 9.30 A.M., M. Lindo telephoned me a new telegram from Amador, which had arrived during the night. Once translated it read: "This is for Bunau-Varilla. To-morrow at daybreak the attack will be made Atlantic—enthusiasm —cable—ships—Atlantic—help—need—rabbish—thousand dollars— Pacific—little coal—took the flight—Padilla—pursues—rest—department—with—us.—AMADOR."

This telegram was as confusing as the first one. Amador made no mention of the text we had agreed on, and on the conditions linked with it. Beyond that, he was asking me for a mad, improbable thing: the support of the American ship to help the revolutionists in their attack on Colon. It was incredible, but, however extraordinary, this request was in harmony with the general opinion which the arrival of the *Nashville* had created.

I resolved to refresh the memory of Amador and to explain to him why I had sent the $25,000 under these conditions. I cabled to him in conventional language the following:

"PIZALDO,
"*Panama.*

"This telegram is for Amador.

"First: Repeat the word—rabbish.[1]

"Second: Am all ready but am waiting—a telegram—subject to conditions agreed—to notify by telegram that we are opening a credit—but—

[1] The word "rabbish" could not be deciphered in the preceding cablegram from Amador. It probably meant a figure.

on account of imperious necessity—of dominating—on Atlantic—shall guarantee—immediately—$25,000.

"Third: Wire if there was a change—proclamation independence—it is very important that we should know more—publication.

"Fourth: With all the insistence possible I recommend you to seize Colon."

I neglected, as may be seen, to answer the foolish request for support from the American ship. I did not wish either to encourage or to destroy the state of mind which probably increased the leverage of the moral pressure exercised on the Colombian troops.

Departure of the Colombians: Brief Summary of Events

The day passed without bringing any further news. I remained in a state of anxiety, as may well be imagined. In the evening at 11 o'clock my friend Lindo knocked at the door of my room at the Waldorf.

He gave me a telegram in plain Spanish. It read:

"Tower,
"New York.

"The hostile troops are re-embarking. Demand from Jones (Bunau-Varilla) $100,000.

"Smith (Amador)."

At last the Isthmus was liberated. What had taken place?

I have already related how on Tuesday, November 3, General Tovar had preceded his troops to Panama. He had left them in Colon in the hands of Colonel Torres.

The enthusiasm created by the arrival of the *Nashville* on the evening of the preceding day had spread amongst the entire population.

That portion of the suburbs known as Santa Ana, which always played an important part in popular movements, was the scene of an intense agitation.

A compact mass of citizens had entered the city eager to begin action for the liberation of the Isthmus.

Amador had been the first to rise to the situation and to march to the barracks at the head of a multitude, who demanded the overthrow of the Colombian yoke.

His arrival at the barracks was the spark in the powder barrel. General Tovar was arrested by the troops of the Colombian garrison, which had espoused the cause of Panama owing to their long stay on the Isthmus.

General Huertas, a brave and courageous officer, whose valour had been tried in many battles, raised the banner of revolt by asking General Tovar to surrender his sword.

The Proclamation of Independence, and the constitution of the new Republic immediately followed.

When this news became known at Colon on the arrival of the first train on the following day, November 4, Colonel Torres ordered his 500 soldiers to take up arms. He declared that he would kill to the last man all the Americans in Colon if General Tovar remained a prisoner.

The *Nashville* immediately landed marines.

Her commander, Hubbard, had only about sixty men. They soon established a line of defence with cotton bales from the railroad shed.

During several hours the hostile troops remained face to face with loaded guns. It was nothing short of miraculous that a conflict did not break out.

Finally, Colonel Torres agreed to withdraw outside the line occupied by the American troops.

He then began to parley with Porfirio Melendez, the delegate of the Provisional Government. Finally the former was wrongly persuaded that he had before him not the insurgents of Panama, but the enormous power of the United States. He then yielded to what he believed to be an irresistible force. On the following day, November 5, he agreed to re-embark his troops for Carthagena on a steamer of the Royal Mail Company, which was leaving in the evening. The new Government, undoubtedly with great satisfaction, paid the transportation to the steamship company.

Confusion as to my Attributions: All Doubts removed

It was the long-desired solution. At last the Isthmus was liberated. The Republic was extending her authority over the two seas, and over the whole inhabited territory between them. It was in possession of all the essentials which the law of nations requires for the recognition at least of a state of belligerency. Its sovereignty was exercised over all the towns, fortresses, and harbours of its territory. All that had been accomplished without conflict. There had been no bloodshed. The American troops had not had to interfere. They were henceforth bound to protect the Republic against any attack from the Colombians. Any warlike action on the latter's part would have been a disturbance on the line of transit. The Treaty of 1846 compelled the United States to prohibit any such disturbance even to Colombians. The military and diplomatic situation, which I had conceived and dreamed of realising when returning from Washington, on the 9th of October, preceding, had been completely established, twenty-six days afterwards.

I was on the point of leaving immediately for Washington, but I felt that the moment had not come.

What was the use, so long as I had not a regular appointment ?

The silence of Amador as to my diplomatic powers seemed to me to be very suspicious. He seemed to have entirely forgotten all about it and to have remembered only my promise to furnish the new Republic with funds.

On the other hand, no urgent danger required me to intervene immediately. I therefore remained in New York, counting on the arrival of the famous despatch for the night of the 5th or the 6th, since there was no longer any reason for its delay. But the night brought nothing ! I decided on Friday morning, November 6, to clear up this extraordinary situation. At eight o'clock I sent in plain Spanish the following cablegram :

" AMADOR,
" *Panama.*

" Wish you to beg Government to send me in plain language the message agreed between us on October 20, when you came to see me the last time before embarking. It will allow me through my official authority to solve political and financial questions, the latter being on a wider base than was projected. These two public missions are inseparable, as was explicitly understood between us. I decline any responsibility in the future, if Government Republic prefers any other solution. My hands will be tied; my heart will remain the same.

" BUNAU-VARILLA."

A little less than two hours and a quarter after sending this message the following cablegram was handed to me at 10.14 A.M. :

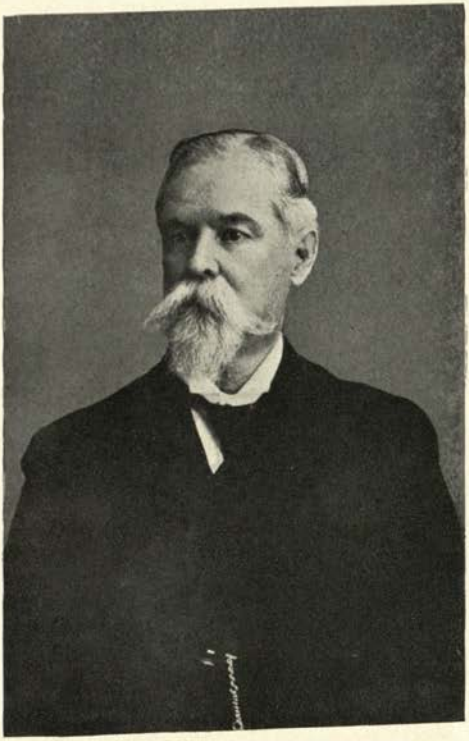
" PHILLIPPE BUNAU-VARILLA,"
" *Waldorf Astoria,*
" *New York.*

" We are declaring to-day, November 6, to the Secretary of State that Colon and all the towns of the Isthmus have adhered to the Declaration of Independence proclaimed in our capital. The authority of the Republic of Panama is obeyed on all its territory. Press the recognition of the Republic by the Government.

" ARANGO, ARIAS, BOYD."

My despatch to Amador, which must have arrived a short time after this one was sent, seemed to be a direct answer to it.

What the Provisional Government—composed of MM. Arango, Arias, and Boyd—had telegraphed demonstrated the complete execution of the first phase of the plan, which I had traced to Amador. The Republic had been, as I had prescribed, limited to the Isthmus properly speaking. But the mystery continued as far as my diplomatic powers were concerned. How could intelligent men like Arango, Arias, and Boyd tell me to intervene with the American Government without having entrusted me with an official mission ?



C. Endara, Panama]

DON JOSÉ AGUSTIN ARANGO, PRESIDENT OF THE JUNTA OF PANAMA

Had a telegram been lost or suppressed ?

Whatever may have been the reason for this strange attitude, my despatch of the morning ought to have sufficed to bring forth an explanation. However, I cabled immediately to the Government. I feared that Amador's secret ambition of representing the new Republic might be the cause of the confusions and have led him not to communicate my despatch to the Government :

"GOVERNMENT,
"*Panama.*

"Your telegram received. I answer :

"First : I cannot act usefully if you do not appoint me Minister Plenipotentiary of the Republic of Panama to the United States.

"Second : If you so decide, notify me by cable my appointment, and notify officially to American Consul at Panama, so that he may cable to Washington what powers have been conferred upon me.

"Third : Give me also the power to appoint the official banker of the Republic in New York, so that I may open an immediate credit.

"BUNAU-VARILLA."

APPOINTMENT OF A PLENIPOTENTIARY : DE FACTO RECOGNITION

At 6.45 in the evening of the same day arrived the telegram of the Government, which finally concluded the cycle of operations incumbent upon the people of the Isthmus.

It was worded thus :

"PHILIPPE BUNAU-VARILLA,
"*Hotel Waldorf Astoria,*
"*New York.*

"The Junta of Provisional Government of Republic of Panama appoints you Envoy Extraordinary and Minister Plenipotentiary near the Government of the United States of America with full powers for political and financial negotiations.

"J. A. ARANGO,
"FREDERICO BOYD,
"TOMAS ARIAS.

"F. V. DE LA ESPRIELLA,
"*Minister of Exterior Relations.*"

On the 6th of November, at 6.45 P.M., ended therefore the revolution according to the precise programme which I had given to Amador, and which he had carried away from Room 1162 of the Waldorf Astoria at 9.30 in the morning of the 20th of October. Seventeen days and some hours had been necessary, seven days of which were spent on the sea voyage, and seven wasted in unnecessary and dangerous hesitations.

Colombian tyranny had been expelled from the Isthmus; the purely Isthmian Republic was founded, and its authority established

on all its inhabited territory, in spite of hesitations, in spite of errors, and without the slightest co-operation, open or occult, on the part of the American Government. It was at this very moment that my active part was beginning.

By a happy coincidence, as I was at my first goal, newspapers arrived which announced the recognition of the Panama Republic as Government *de facto*.

My application to the Department of State, two days before, had been fraught with happy consequences. The good-will of the American Government was being already shown in a striking manner.

The Republic of Panama was recognised as a *de facto* Government three days after its birth.

It was very rapid work, but not abnormally rapid. The Republic of Brazil was recognised in even a shorter time still, whatever may be said by those who declare that such haste is scandalous, and has no precedent in history.

I waited until the last editions of the evening papers appeared. They gave the text of an admirable despatch sent by Mr. Hay to the American Minister in Bogota.

Mr. Hay announced to Bogota in straightforward and concise words the decision of the Government of the United States :

"*Department of State,*
"*Washington, November* 5, 1903.

"The people of Panama having by an apparently unanimous movement dissolved their political connection with the Republic of Colombia and resumed their independence, and having adopted a government of their own—republican in form—with which the Government of the United States of America has entered into relations, the President of the United States, in accordance with the ties of friendship which have so long and so happily existed between the respective nations, most earnestly commends to the Governments of Colombia and of Panama the peaceful and equitable settlement of all questions at issue between them. He holds that he is bound not merely by treaty obligations but by the interests of civilisation, to see that the peaceful traffic of the world across the Isthmus of Panama shall not longer be disturbed by a constant succession of unnecessary and wasteful civil wars.

"HAY."

M. Lindo, who during all this period had so loyally and so faithfully served the cause of Panama, arrived at about the same time.

He forced me, in conformity with American customs, to share with him a bottle of champagne, in order to celebrate the first step of the new Republic into the circle of the Family of the Nations.

It was in a corner of the café at the Waldorf Astoria that the little ceremony was modestly performed which marked an event the consequences of which were to be of such prodigious importance to

humanity. At 12.50 the same night I sent the following cablegram to the Isthmus :

"GOVERNMENT, REPUBLIC,
"*Panama.*

"I have fought for nineteen years for the triumph of the Panama Canal on every battlefield : against rebellious Nature and against Human Ignorance still more rebellious.

"I thank the Government for entrusting to me the high mission, which allows me to devote my energy to the defence of this newborn Republic, which will ensure the realisation of the most heroic conception of human genius.

"As first official news, I have the honour of informing you of the official recognition of the Panama Republic by the Government of the United States. The latter has besides notified its decision to Bogota in terms equivalent to a formal prohibition of undertaking war operations against us.

"BUNAU-VARILLA."

I soon after received this answer :

"PHILIPPE BUNAU-VARILLA,
"*Minister Plenipotentiary of Republic of Panama,*
"*Waldorf Astoria,*
"*New York.*

"The news of the official recognition of the Republic of Panama by the American Government, as well as the notification made at Bogota, which is equivalent to a formal prohibition to undertake a war against us, has been received here with joy and with an enthusiastic gratitude.

"The Government of Panama recognises the importance and the efficacy of the services of Your Excellency, whose name will occupy a pre-eminent place on the first page of our history.

"F. V. DE LA ESPRIELLA,
"*Minister of Exterior Relations.*"

I PUBLICLY NOTIFY MY OFFICIAL POSITION TO THE SECRETARY OF STATE

I then went to take some needed rest, and on the following morning, Saturday, November 7, 1903, I drew up the official notification of my new appointment to the Department of State at Washington. I sent it by wire at noon.

"*New York, November* 7, 1903.

"[Received at the Department of State, 1.40 P.M.]

"HIS EXCELLENCY JOHN HAY,
"*Secretary of State.*

"I have the privilege and the honour of notifying you that the Government of the Republic of Panama has been pleased to designate me as its

Envoy Extraordinary and Minister Plenipotentiary near the Government of the United States.

"In selecting for its first representative at Washington a veteran servant and champion of the Panama Canal, my Government has evidently sought to show that it considers a loyal and earnest devotion to the success of that most heroic conception of human genius as both a solemn duty and the essential purpose of its existence.

"I congratulate myself, sir, that my first official duty should be respectfully to request you to convey to His Excellency the President of the United States on behalf of the people of Panama an expression of the grateful sense of their obligation to his Government.

"In extending her generous hand so spontaneously to her latest born the Mother of the American Nations is prosecuting her noble mission as the liberator and educator of the peoples.

"In spreading her protecting wings over the territory of our Republic the American Eagle has sanctified it. It has rescued it from the barbarism of unnecessary and wasteful civil wars to consecrate it to the destiny assigned to it by Providence, the service of Humanity and the progress of Civilisation

"PHILIPPE BUNAU-VARILLA."

I had only to leave for Washington, following my message.

THE NATURE OF THE STRUGGLE AHEAD OF ME

I expected to open negotiations in the afternoon with the leading bank in the United States, J. Pierpont Morgan & Co.

Unfortunately it was a Saturday. The bank was closed. I had to postpone until my return from Washington this part of my mission.

I reached the capital of the United States in the evening, to begin there the last and supreme battle, which was to last three months and a half. It was to end by victory, but, at the price of ceaseless struggles against a coalition of all the human passions. Everything that jealousy, interest, calumny, and treachery could conceive was employed to envenom the arrows aimed against me.

It was given to me, in this last period of my twenty years' war for the triumph of the idea of Panama, to behold some of the most contemptible aspects of human nature, but by way of compensation I had the indescribable satisfaction of admiring men with noble, valiant hearts. The names of Roosevelt, of Hay, of Hanna, of Loomis, of Walker will remain in my memory as symbolising among those charged with a public service the purest devotion to national interest, boldness in action for its defence, and unshakable moral force before the frenzied attacks of its adversaries.

Against my work formidable interests were up in arms. The opposition to the party in power could, by defeating what I had accomplished in Panama, deprive President Roosevelt of his highest title in the Presidential elections, of November of the following year. Those devoted to Nicaragua in the Republican or Democratic

ranks looked to the same downfall for the final triumph of their hopes. The friends which Colombia was to acquire at Washington in defence of her so-called violated rights were to swell these two armies of my opponents.

I was the pivot on which centred the whole detested operation, and upon me were to be concentrated all the efforts of those who wanted to destroy it.

Fortunately the firm basis of clearness and straightforwardness, which I had, throughout my life, taken for my acts, defied the most desperate assault.

It seemed to me as if I were in the position of the legendary hunter, who in the middle of the Indian forest had placed himself in a cage surrounded by the carcases of sheep to attract the wild beasts. He could peacefully enjoy the spectacle of the exasperated and powerless tigers gnashing their teeth against the steel bars of the cage.

During this extraordinary period I have no recollection of having for one single instant lost my complete tranquillity of mind.

On the contrary, it seemed to me as if Nature were rendering more sensitive all the springs of perception and of judgment.

There was not a single attack directed against me which I was not able clearly to outline in advance. I was always ready to parry it by a counter-manœuvre.

The Misunderstanding between the Panama Government and myself

On my arrival at Washington I learned the reason of the telegraphic misunderstanding between the Government of Panama and myself.

On the 4th I had been, it may be remembered, to Washington. Two despatches sent to New York had followed me to Washington, but they had arrived there after I left. In spite of my express directions they had been kept and not forwarded back to New York. I found them when I arrived on the evening of the 7th.

The first of these cablegrams said :

"Philippe Bunau-Varilla,

"The Provisional Government appoints you Confidential Agent near the Government of Washington to negotiate the recognition of the Republic and contract a loan of $200,000 to be deposited where MM. Piza and Nephews will indicate.

"Please answer.

"Arango, Boyd, Arias."

The other cablegram was from Amador. It said among other things :

" You will be appointed Confidential Agent, only diplomatic office which it is possible to give you."

I wondered once more at the extraordinary luck which dominated every circumstance. In face of such cablegrams the only attitude which it behoved me to take was to neglect them with scorn. My dignity required me to treat them as null and non-existent.

That was precisely what the accident of their non-transmission had led me automatically to do. After reading the telegrams which I had despatched meanwhile, I found they would not have been different if I had wittingly ignored these two cablegrams. And that was the interpretation which at Panama must have obviously been given to my silence.

The "New York Herald" rallies, on November 8, to Panama

I arrived at Washington in the night of Saturday to Sunday. I was agreeably surprised on the following morning, on opening the *New York Herald*, to see that this important organ of public opinion had gone over to the Panama side.

It had hitherto persistently defended the cause of Nicaragua. The reprobation which the attitude of Colombia had engendered, and the unanimous sympathy provoked by the revolution of Panama, had removed the prejudices of the *New York Herald* against Panama. It now loyally joined its supporters, and this was a magnificent augury for final success.

I immediately wired the following despatch to the owner of this powerful journal :

"James Gordon Bennett,
"*Paris.*

"The expression of sympathy, which your great organ has given this morning to the Republic of Panama is an event of high importance for its future and a landmark in its history.

"I desire to offer you in the name of the Republic, and of the people of the Republic of Panama, our gratitude, to which I add the expression of my high consideration.

"Bunau-Varilla."

The attitude of the *Herald* was significant on account of its previous stubborn opposition, but it was not isolated. From all sides came the

expression of analogous sentiments, both for the new Republic and for myself.

Diplomatic Luncheon: Plan of Action decided on

In the course of the day Mr. Hay sent me an invitation to lunch at his house on the following Monday, November 9, at 1 o'clock. This was the answer, at the same time cordial and diplomatic, which Mr. Hay made to the public notification of my mission as Minister Plenipotentiary. I had, in fact, forced events in communicating this despatch to the press.

The Republic of Panama was not yet recognised as a Government *de jure*, and consequently no Minister Plenipotentiary could be received at the Department of State by Mr. Hay.

But I had wished in making this notification public clearly to claim for the Republic of Panama recognition as a *de jure* Government.

I was in great haste to arrive at that point, in order to sign the Treaty, and to reach a fresh halting-place. So far the Republic had been limited to its primary form, that of a republic purely Isthmian. But the movement had been started. Adhesions from the rest of the province of Panama were being spoken of.

It was urgent that the protection of the United States should no longer be confined to the Isthmus proper, but should be extended by a treaty to the whole province of Panama.

It was possible to make that claim as one of the compensations for the Canal concession.

So long as the Treaty was not signed, only the zone from Panama to Colon, the Isthmian zone, was protected in virtue of the Treaty of 1846.

But the contagion of Independence was now menacing the rest of the Province, and it was necessary to advance at an equally rapid pace.

The immediate signature of the Treaty was the price of that protection.

This is why I had hastened my request for a formal reception by the President of the United States. I had formulated it, and made it public on November 7, four days after the constitution of the new Government.

The invitation of Mr. Hay for Monday, November 9, was evidently a step forward and a progress towards the goal.

Vain Effort to induce Senator Morgan to rally to Panama

On Monday morning I resolved, while I was still free, to attempt a supreme effort to bring Senator Morgan over to the cause of Panama.

If the events which had taken place had enlightened at last the

conscience of the old Senator, why should I not try to throw a bridge between him and Panama ?

What had I to risk in offering him an honourable surrender to Panama ? Nothing !

What had I to gain if he accepted peace ? An immediate and complete triumph !

I wrote him the following letter, which I had delivered before going to Mr. Hay's house :

"*Legation of the Republic of Panama,*
"*Washington,*
"*November* 9, 1903.

"HON. JOHN J. MORGAN,
"U. S. *Senator,*
"*Washington, D.C.*

"MR. SENATOR,

"As a champion of the completion of an interoceanic canal across the American Isthmus; as the Minister Plenipotentiary of the new Republic, the life of which has sprung from an explosion of the ardent desire of turning into a reality this dream of the centuries; I feel myself bound to express to you my admiration for the display of indomitable will you have shown in the service of this noble conception.

"The fact that we have both fought with all the energy of our minds for a common ideal is not lessened by the minor fact of having defended different solutions.

"If I have not been on the same side as you, allow me, Mr. Senator, to say that it is simply because I entered into the field of active life about one-third of a century after you.

"The solution which was the better one fifty years ago, when there was scarcely any ship drawing more than 17 ft. of water, has gradually seen its superiority vanish and transformed into a marked inferiority owing to the steady increase of the draft and of the length of ships.

"These gradual and scarcely noticeable changes in the technical necessities of the waterway are accountable for the differences of opinion between you, the champion of the solution of the middle of the nineteenth century, and the champions of the solution of the beginning of the twentieth.

"Now, Mr. Senator, I come to you, and I most respectfully entreat you to take the high place which is due to the honoured veteran of the noblest fight that was ever waged for the progress of the world and the welfare of mankind.

"I beg you not to throw away the title which the gratitude of humanity owes to you, that of the Father of the Isthmian Canal; I beg you to take the laurels of a victory which is yours, by accepting in a generous and Christian spirit what the changes in the necessities of ocean traffic have made inevitable.

"You will thus admirably crown a noble life inspired by the greatest, the most patriotic, the most disinterested of aims.

"I am, Mr. Senator,
"Most respectfully yours,
"P. BUNAU-VARILLA."

This letter, for which no equitable mind could reproach me, was to attract an enormous amount of public attention. I therefore took

advantage of the publicity thus given to it, to make everyone understand, through a concise statement, that the idea of Nicaragua was indeed obsolete and condemned.

It was the last arrow that I was to shoot at the partisans of the rival canal.

It was certainly not useless. As will be seen later on, it was the mass of the nation that finally silenced the politicians, and forced the ratification of the treaty ensuring the construction of the Panama Canal.

This ray of new light, thrown, at the last moment, on this great debate, may have favoured the final reaction which secured the victory.

The press took up the letter and it was passionately discussed. The Americans are very jealous of the separation of powers, and do not admit of any connection between the representations of the nations and the members of the diplomatic corps. It was proposed to invite me to leave the United States. Twice already this summary treatment had been inflicted upon Ambassadors accused of political intrigue. The British Ambassador, Lord Sackville West, had been under such conditions positively expelled from the United States by President Cleveland. Formerly the same measure had been taken against a diplomatic envoy of France : Genet.

I soon calmed this miniature storm by stating that at the moment I had written the famous letter I was still only a private individual as far as the United States was concerned.

Senator Morgan obstinately refused to cross the bridge I had built for him. He declared that if he were to follow any advice it would be only that of an American citizen.

This proud declaration did not help to rehabilitate the erroneous idea to which he was to remain faithful to the grave.

The *Evening Post* which, from the very first news of the revolutionary movement, had begun a violent campaign, gave the measure of its spirit of justice and sincerity by thus commenting in an editorial of the 10th of November on the answer of the old Senator :

" We do not wonder that Senator Morgan has claimed that he had received an offer to buy him from Minister Bunau-Varilla."

The Only Condition of Success : Quick and Drastic Action

After the luncheon with Mr. Hay, we discussed the situation. I condensed my views in the following terms :

" Mr. Secretary of State, the situation harbours the same fatal germs—perhaps even more virulent ones—as those which caused at Bogota the rejection of the Hay-Herran Treaty. There the only enemies were the intrigues of the Colombian politicians. The same

elements will be found at Panama; but the passions of parties and of contradictory interests at Washington will add other pernicious elements still more active. The situation can be saved only by firmness of decision, and lightning rapidity of action. It is necessary to leave the enemy no time to perfect his plans. It is necessary to strike, to strike again, to keep on striking, and to win the victory, before the foe has time to block the way."

Mysterious Mission from Panama—Secret Intrigues

"By the way," said Mr. Hay, "what is this Commission, which according to the press despatches is going to leave the Isthmus to make the Treaty?"

"So long as I am here, Mr. Secretary," I answered, "you will have to deal exclusively with me."

I too had read in the morning papers that a commission was going to leave Panama in order to make the Treaty. At first I regarded the news as erroneous.

The preoccupation of Mr. Hay showed me that the news had some basis. This state of things if real could only conceal a manœuvre. The intrigue in such a case seemed to me apparent. After giving me the ridiculous title of Confidential Agent, the Government of Panama had entrusted me with the formal mission of Minister Plenipotentiary, only on a precise injunction on my part. The commission was evidently being sent to substitute itself for me. Amador was a party to it. I knew his childish desire to sign the Treaty. He had evidently refused for that reason to assume the office of President of the Provisional Government, which belonged to him by natural right. All this clearly indicated that it was the beginning of a plot against me.

I nipped this intrigue in the bud by the following cablegram, which I sent to the Minister of Exterior Relations at 4.30 in the afternoon on leaving Mr. Hay:

"I have explicitly denied rumour to the effect that a special commission is coming to discuss and sign the Treaty, which produced a very bad impression, as it would be contradictory to my mission. I have given the assurance that nothing on our side would be done to prevent the rapid drafting of the Treaty.

"I shall submit to the approval of Your Excellency all the articles in succession, as they are agreed upon.[1]

"It is eminently necessary to act rapidly in order to paralyse the formation of an obstructionist group supported by Nicaraguan and Colombian intrigues."

[1] I was obliged, as will be seen later on, to neglect this formality and to sign the Treaty on my own responsibility.

At 6.50 in the evening of the same day the following cablegram arrived for me. It had most likely left Panama at the same time that my telegram had left Washington.

"As it is thought convenient to avoid your request for advice on objects of urgent resolution, to-morrow (Tuesday, November 10), Amador and Boyd will leave, carrying your letters of credence."

The tortuous tone of this message, and the evident fact that the reason it gave was but a pretext, confirmed my suspicions. I was furthermore the last to be informed of this decision which so closely concerned me, and this was significant.

On the following day (Tuesday) I received the answer to my telegram of the preceding day. As my despatch was in the form of a formal demand for satisfaction, such satisfaction was given me in the following terms :

"We approve that you have denied that Commissaries go to discuss and sign Canal Treaty, all things that exclusively concern Your Excellency. Amador and Boyd have no mission to the American Government, but only the mission communicated to Your Excellency in yesterday's cablegram to avoid loss of time."

On the following day (Wednesday), I received without asking for it a new cablegram repeating, with still more insistence, the substance of the one which has just been read.

The two last despatches—those of Tuesday, the 10th, and Wednesday, the 11th—had been provoked by my demand for an explanation made on Monday, the 9th. They were both clear. The first one, which emanated spontaneously from the Government, and which had been written simultaneously with my demand, was ambiguous.

The despatches of the American Consul reflected the same succession of different attitudes.

On Tuesday, the 10th, he cabled to the Department of State :

"Frederico Boyd, a member of the Committee of the Government, Amador Guerrero, both delegates, on the way to Washington to *arrange* in satisfactory manner to the United States the *Canal Treaty* and other matters. Pablo Arosemena, attorney, follows by next steamer."

Amador had left on the 10th. From the moment he sailed his influence had ceased to prevail. The Government, having deliberated on my despatch of the 9th, had already turned round that very same day, probably without notifying the American Consul in time. But on the following day the latter had been notified of the change. He cabled directly to the Department of State on the 11th :

"I am officially informed that Bunau-Varilla is the authorised party to make treaties. Boyd and Amador have other missions and to assist their Minister.—EHRMAN."

These despatches left me the road completely free, but they had convinced me that there had been a plot against me hatched at Panama. I attributed the happy change to Arango, the President of the Government, whose straightforward mind and sure judgment were well known to me.

I had the proof of this little conspiracy when the delegates arrived in Washington on November 18, and communicated to me, on the following day, the written documents emanating from the Panama Government as to the part they had to play in conjunction with me. These documents flatly contradicted the telegram I had received on the 10th, according to which they were coming to assist me in case I should desire advice, and therefore in case I should deem proper to consult them. It was just the contrary. According to these documents, I was merely to be the intermediary of their ideas.

My written instructions brought by the Delegation for me were thus worded :

"You will have to adjust a Treaty for the Canal construction by the United States. *But all the clauses of this Treaty will be discussed previously with the delegates of the Junta, MM. Amador and Boyd. And you will proceed in everything strictly in accord with them.* . . . "

On the Isthmus they knew me too well not to be certain that I would not remain five minutes in the humiliating situation of mere intermediary between Mr. Hay on the one hand and MM. Amador and Boyd on the other.

In the eventuality of my resignation, which such treatment rendered certain, they were provided with a decree, stating *that they were fully authorised to negotiate direct with the Government of the United States.*

The intrigue was demonstrated. It aimed at the substitution for my name of those of Amador and Boyd in the signature of the Treaty.

I had foreseen all this on the first confirmed news of the departure of Amador as a delegate. In demanding an immediate declaration from the Government I had shown it its duty and cleared my way. I entirely foiled, as will be seen later on, the subtle intrigue by passing through every stage of the business without stopping, and by signing the Treaty some hours before the perfidious instructions came to hand.

While waiting for the demonstration of what I suspected, I desired to make the Provisional Government clearly understand both that I had deciphered the secret and egotistical plans which had been concocted, and also what danger there lay in troubling an order of things which was proceeding admirably at Washington.

After receiving his third despatch on the subject I cabled on the evening of Wednesday, the 11th of November, to M. de la Espriella, the Minister of Exterior Relations, as follows :

"First: When the cablegram of Your Excellency arrived it was quite in time to wipe out the bad impression produced on the Secretary of State by the telegram of Consul Ehrman (of November 10), referring to the object of the mission of the delegates. This telegram said the same thing as the newspapers, and was in contradiction with the anterior cable which Your Excellency had sent me. However, thanks to your final repetition, the incident will be considered as terminated, and the object of the mission made definite according to what Your Excellency has telegraphed me, and not according to what Ehrman telegraphed (on the 10th of November).

"Second: I have the great honour and the supreme satisfaction of informing you that the American Government, acceding to the proposition I exposed in the conference of Monday with Secretary of State, Mr. Hay, has decided that I should be recognised officially and received in solemn state by His Excellency the President of the Republic of the United States next Friday, November 13, at 9.30 in the morning. This will mean that at this moment our dear Republic will enter the Family of Nations and will cease to be *de facto* to become Government *de jure*."

Proposal of Financial Agency to J. Pierpont Morgan

Between my conference on Monday with Mr. Hay and the sending of this despatch on Wednesday I had made a flying visit to New York. My aim was to propose to Mr. Pierpont Morgan to accept for his banking firm the office of Financial Agent of the Republic of Panama.

I requested him to make the Republic an immediate loan of $100,000. But at the same time I offered to deposit in his hands in cash the same sum of $100,000, so as to cover and guarantee this loan. Later on, after the ratification of the future Treaty, the Republic would dispose of more important sums. J. P. Morgan and Company were, as the Financial Agents of the Republic, to be granted by me the exclusive faculty of cashing the indemnity to be paid by the United States to the Republic in virtue of the Treaty.

As the acceptance of this proposed understanding required some days' consideration I requested M. Lindo to place at the disposal of the Government the $75,000 which remained of the $100,000 I had promised to advance to the new Republic. My word was for him sufficient guarantee that he would be repaid as soon as J. P. Morgan and Company advanced the $100,000 guaranteed by my money.

Less than eight days after its birth, the debut of the Panama Republic in the diplomatic and financial worlds was ensured. It was made under the double chaperonage of the greatest Republic in the world, and of the greatest of its financial organs.

The Declarations of General Reyes—Bogota's Punic Faith

While I was thus rapidly advancing I had to be on my guard against a stab in the back.

It has been seen how a little conspiracy had already been hatched

against me at Panama in the very midst of the group of men for whose life and aspirations I was struggling. Colombia at the same time was preparing her first attack.

On the 8th of November at 11.5 P.M. the Department of State received the following despatch from M. Beaupré, Minister of the United States at Bogota. It bore the date of November 6, 6 P.M. It was, therefore, anterior to the arrival of the despatch of Mr. Hay published in the New York papers of the evening of the same day.

"Knowing that the revolution has already commenced in Panama, General Reyes says that, if the Government of the United States will land troops to preserve Colombian sovereignty and the transit, this government will, if requested by the Colombian *Chargé d'Affaires* declare martial law, and by virtue of constitutional authority, when public order is disturbed, will approve by decree the ratification of the Canal Treaty as signed, or if the Government of the United States prefers, will call extra session of Congress with new and friendly members next May to approve the Treaty. General Reyes has the perfect confidence of Vice-President (Marroquin the President, in fact). . . .

"There is a great reaction in favour of the Treaty, and it is considered certain that the Treaty was not legally rejected by Congress.

"To-morrow martial law will be declared, 1000 men will be sent from the Pacific side and the same number from the Atlantic side."

This document clearly illustrates once more the Punic faith with which throughout this entire question Colombian policy was inspired.

The news of the Panama revolution wrought the miracle which could be effected neither by the obvious duty of preserving the very source of the life of all the inhabitants of an entire province, nor by the obvious duty of serving loyally the execution of the gigantic work necessary to the whole of humanity; nor by the obvious duty of respecting the interests of those who, at the cost of cruel sacrifice, had rendered this work a practical certainty. Colombia now decided to ratify the Treaty which she had just rejected with hypocritical indignation. But by what means? It is very simple, replies her principal statesman, he who was soon after to become her President, General Reyes: "Martial law will be declared and the ratification will be made by decree as the Constitution permits!"

And this was declared at Bogota by General Reyes, as the spokesman of the President and of the people, when the Colombian Senate less than a month before had acquiesced in, and shown by its acts that it appropriated to itself, the abominable theory of the illegality of the six-years' extension of the French company's concession! This extension, in virtue of this theory, could be declared null and void if Congress were so disposed, because, said these casuists, such legislative decrees could legally cover only measures of *a temporary character.*

The Colombian Government had not protested, General Reyes had

not protested, and the Senate not only had not protested by the voice of a single one of its members, but had acted precisely as the complete adoption of this theory of spoliation commanded !

But one day the danger had appeared and instantly the *legislative decree*, so weak on the previous day, was declared to have the power necessary, not only for granting an extension of six years of the term of a concession, but *for granting a concession to last forever !*

However, as objections might be presented at Washington as to the legitimacy of this sort of ratification, owing to the declarations made before the Senate, and actually adopted by that body, General Reyes offered another solution. This solution, declared by General Reyes to be easy and certain of success, was to convoke another Congress with other members who *should approve the Treaty.*

We have thus a clear view of the policy of Bogota.

A unanimous vote of the Senate (minus that of Senator Obaldia) had rejected the Treaty. The session had closed only six days before, in order to wait for the failure of the company, as it was certain that this eventuality would be caused by the refusal of the Senate to say if the extension was valid or not.

But the revolution takes place. Members will now be elected who will now certainly ratify the Treaty. General Reyes declares that a contract may be made on this basis.

Does not all this show that the elections which had assembled this hostile Congress had been tampered with ? Does not this show that it was but a tortuous and wily method, either entirely to kill the Canal enterprise, as some wished, or to rob the French company in a tangle of constitutional laws, or at least to levy blackmail on the French company and on the United States ?

Yes, it is obvious that it was but a feint, since General Reyes had declared that the elections would be next time what the Government desired.

In saying that, in a moment of haste and fear, he was but expressing what everybody knew by experience. It is, indeed, known that, throughout the history of Colombia, whenever the Government needed a vote the soldiers have been substituted for the electors at the polls. This method furnishes the Government with exactly the national Congress it desires.

Mission of General Reyes to Panama and Washington

The arrival of Mr. Hay's telegram announcing the recognition of the new Republic as a *de facto* Government cut short the offers of General Reyes.

He left Bogota to bring back the strayed sheep.

No man was better qualified. His superior intelligence, his devotion to public welfare, his desire to serve it as well as he could in the midst of the conflicting passions and interests with which his country was torn, designated him for the task.

The Panama Government was stirred, for they feared the effect of Reyes' personal magnetism if he arrived on the Isthmus.

M. de la Espriella begged me to arrange for the sending of a Panama delegate on an American cruiser, to the mouth of the Magdalena, where General Reyes was to embark for Colon, in order to try to prevent him from coming to the Isthmus.

It was quite impossible, but I understood how necessary it was politely to prohibit Reyes from landing on the Isthmus. However, as the American Government had expressed the desire of an amicable arrangement between Panama and Colombia, I felt myself obliged not to take any aggressive measure against Colombia without first consulting the Department of State at Washington.

It was under these conditions that I telegraphed the convenient solution to Panama in the following terms on Wednesday, November 11, in the same telegram in which I announced, as I have said, my reception for two days later by President Roosevelt.

"Concerning the arrival of General Reyes, the solution which Your Excellency charged me to defend appears to present weak points exposing to dangerous criticisms. I proposed, and it was considered as satisfactory, that the Government of Panama Republic should notify to General Reyes that his presence on the Republic's territory cannot under any pretence be tolerated, if he comes with an official mission of the Colombian Government, without bringing regular letters of credence as Envoy Extraordinary and Minister Plenipotentiary of Colombia to the Government of the Republic of Panama. He must further be notified that if he does not satisfy this essential condition any ship transporting him will be prohibited from entering the territorial waters of the Republic of Panama."

On the following day, November 12, M. de la Espriella cabled me :

"It was with a great pleasure that the news of your reception in solemn state to-morrow as Plenipotentiary of Panama was received. . . . The Government will notify General Reyes with all due courtesy what Your Excellency desires."

The Republic of Panama recognised by the United States

At last the long-desired day arrived. At 9.10 A.M. I left the New Willard Hotel for the Department of State, where Mr. Hay was waiting to accompany me to the White House at 9.30 A.M.

I had taken my son with me for the short drive from the hotel to the Department. He remained in my carriage to return alone to the hotel.

Clinedinst, Washington]

JOHN HAY AND PHILIPPE BUNAU-VARILLA IN THE STATE DEPARTMENT BEFORE GOING TO THE WHITE HOUSE FOR THE RECOGNITION OF THE REPUBLIC OF PANAMA, NOVEMBER 13, 1903

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When I came down with Mr. Hay I found him still there, observing a scene in the street which had fixed his attention. I introduced my son to Mr. Hay, who instantly had the charming idea of taking him to the White House to witness the ceremony.

I gladly consented. He followed in my carriage, myself having taken a place in Mr. Hay's carriage with him. My son entered with us the Blue Room, where the diplomatic receptions are held, and modestly sat down at a little distance from the chairs that Mr. Hay and myself occupied.

A moment later the President of the Republic entered, followed by his secretary, Mr. Loeb. I bowed, and after shaking the President's hand, I read in French the following discourse which had been, according to the rule, previously submitted to the approval of the Secretary of State:

"MR. PRESIDENT,

"In according to the Minister Plenipotentiary of the Republic of Panama the honour of presenting to you his letters of credence, you admit into the Family of Nations the weakest and the last-born of the Republics of the New World.

"It owes its existence to the outburst of the indignant grief which stirred the hearts of the citizens of the Isthmus on beholding the despotic action which sought to forbid their country from fulfilling the destinies vouchsafed to it by Providence.

"In consecrating its right to exist, Mr. President, you put an end to what appeared to be the interminable controversy as to the rival waterways, and you definitely inaugurate the era of the achievement of the Panama Canal.

"From this time forth the determination of the fate of the Canal depends upon two elements alone, now brought face to face, singularly unlike as regards their authority and power, but wholly equal in their common and ardent desire to see at last the accomplishment of the heroic enterprise for piercing the mountain barrier of the Andes.

"The highway from Europe to Asia, following the pathway of the sun, is now to be realised.

"The early attempts to find such a way unexpectedly resulted in the greatest of all historic achievements, the discovery of America. Centuries have since rolled by, but the pathway sought has hitherto remained in the realm of dreams. To-day, Mr. President, in response to your summons, it becomes a reality."

The President of the United States answered in English:

"MR. MINISTER,

"I am much gratified to receive the letters whereby you are accredited to the Government of the United States in the capacity of Envoy Extraordinary and Minister Plenipotentiary of the Republic of Panama.

"In accordance with its long-established rule, this Government has taken cognisance of the act of the ancient territory of Panama in reasserting the right of self-control, and, seeing in the recent events on the Isthmus an unopposed expression of the will of the people of Panama and the

confirmation of their declared independence by the institution of a *de facto* government, republican in form and spirit, and alike able and resolved to discharge the obligations pertaining to sovereignty, we have entered into relations with the new Republic.

"It is fitting that we should do so now, as we did nearly a century ago, when the Latin peoples of America proclaimed the right of popular Government, and it is equally fitting that the United States should, now as then, be the first to stretch out the hand of fellowship and to observe toward the newborn State the rules of equal intercourse that regulate the relations of sovereignties toward one another.

"I feel that I express the wish of my countrymen in assuring you, and through you the people of the Republic of Panama, of our earnest hope and desire that stability and prosperity shall attend the new State, and that, in harmony with the United States, it may be the providential instrument of untold benefit to the civilised world, through the opening of a highway of universal commerce across its exceptionally favoured territory.

"For yourself, Mr. Minister, I wish success in the discharge of the important mission to which you have been called."

After pronouncing the last word, President Roosevelt came up to me and said, "What do you think, Mr. Minister, of those people who print that we have made the Revolution of Panama together?"

"I think, Mr. President," I answered, "that calumny never loses its opportunity even in the New World. It is necessary patiently to wait until the spring of the imagination of the wicked is dried up, and until truth dissipates the mist of mendacity."

My son Étienne had, meanwhile, come nearer, and as the attention of the President was attracted by the presence of a person, who had no diplomatic rank in the protocol of diplomatic receptions, Mr. Hay, with a charming smile, said, "I have now, Mr. President, to introduce to you M. Bunau-Varilla junior."

The mystery was explained. The face of the President brightened with an affectionate smile, and he was on the point of kissing on both cheeks the child, who looked much younger than his years.

"I brought him," I said, "Mr. President, as the representative of the generation, which, more than our own, will reap the fruit of the work you have accomplished this morning."

The ceremony was over.

Thanks to the energy and the decision of President Roosevelt the Republic of Panama was recognised in law ten days after the explosion of the revolution.

Naturally, the newspapers gave the most minute details as to this sudden and unexpected entrance of the new Republic into the Family of Nations.

My son Étienne had naturally a considerable share of the publicity, but he was considerably roused because the reporters gave his age as ten years, when he was entitled to three more.

CHAPTER XXIX

THE HAY-BUNAU-VARILLA TREATY

On the 13th November, 1903, before noon, the Republic of Panama had attained legal status. It could enter freely into a contract.

Immediate Negotiation of the Canal Treaty

The first intrigue hatched at Panama over the question of the Treaty was partially checked. However, not one minute was to be lost. The coat had been cut. It must be instantly sewn together.

The goal would be reached only when the Canal Treaty was signed. Then I should have to defend it solely against the intrigues of its enemies, I should have no longer to think of the intrigues of its friends.

The delegation was about to arrive. Its members, in spite of their good-will, were totally ignorant of the difficult conditions of politics at Washington. Its presence could not but be a cause of trouble, and facilitate the cultivation of personal ambitions, of hostile political interests. No possible good could come of it, while many unfavourable chances might result from its presence.

When I left the White House, with Mr. Hay, I communicated to him my ideas of proceeding with redoubled activity. Two clouds were rising above the horizon: the Amador mission on its way from Panama, and the Reyes mission on its way from Bogota. To prevent any injurious action on the part of either, it was imperative to make no halt on the road, but to act so that both would be presented, on their respective arrivals, not with arrangements in course of elaboration, which they might defeat, but with definitive and accomplished facts.

Success was more than ever the price of rapidity of movement.

Mr. Hay's Project—I prepare Another in Fourteen Hours

Two days later, that is, on Sunday, November 15, I received from Mr. Hay a note thus worded:

"*Most confidential.*

"1800 *Sixteenth Street,*
"*Lafayette Square,*
"*November* 15, 1903.

"DEAR MR. MINISTER,

"I enclose a project of a Treaty. Please return it to me with your suggestions at your earliest convenience.

"JOHN HAY."

It was the Hay-Herran Treaty with insignificant modifications. The figure, however, of the amount of the indemnity, which was $10,000,000 in the Treaty with Colombia, was left blank.

After devoting my day and my evening thinking of how to focus this diplomatic instrument, I took, from midnight until two o'clock in the morning, a necessary rest.

I then woke completely refreshed and began to examine the numerous shortcomings of the Treaty, and their consequences.

One consideration appeared to me as of paramount importance. If the opposition in the Senate discovered the slightest fissure in the Treaty, it was certain to seize that pretext for refusing the ratification. On the eve of the presidential elections any means would appear justifiable to destroy the work of the Republican Government.

The Republican Party, even supposing it should form an homogenous block, and not be reduced by the devotion of several Republican Senators to Nicaragua, could dispose of only fifty-seven votes. It was necessary to have sixty, that is, two-thirds of the ninety senatorial votes, in order to secure the majority required by the Constitution for ratifying a treaty presented by the President.

I was thus led to the conclusion that the indispensable condition of success was to draft a new treaty, so well adapted to American exigencies, that it could challenge any criticism in the Senate.

The only things that I resolved to defend were: first, the principle of neutrality of the interoceanic passage; secondly, the rigorous equality and perfect justice in the treatment of all flags, whether American or non-American, from the point of view of the charges and conditions of transit; thirdly, the attribution to Panama of an indemnity equal to that agreed on with Colombia; fourthly, the protection of Panama.

By way of compensation I had decided to extend widely the share of sovereignty attributed to the United States in the Canal zone by the Hay-Herran Treaty.

After mature thought, I recognised that if I enumerated in succession the various attributes of sovereignty granted, I ran the risk of seeing, in the Senate, some other attributes asked for.

To cut short any possible debate I decided to grant a concession of sovereignty *en bloc*.

The formula which seemed to me the best one was to grant to the United States in the Canal zone "all the rights, power, and authority which the United States would possess and exercise if it were the Sovereign of the territory; to the entire exclusion of the exercise by the Republic of Panama of any such sovereign rights, power, and authority."

When I rose at six o'clock in the morning of Monday, I had in my mind the entire substance of the new treaty. I had requested by wire, my lawyer and friend, the Hon. Frank D. Pavey, to join me on Monday morning at Washington.

A dactylographer was installed in a room near by. I wrote in English successively all the articles of the treaty according to my own conception. Frank Pavey corrected the literary imperfections, polished the formulas, and gave them an irreproachable academic form.

At ten o'clock in the evening I had two finished copies of the new treaty under its final form.

During the day I had quitted my office for a moment to see the Secretary of State and to inform him of the conception I was working out.

I desired, at the same time, to combat any idea he might have of reducing the amount of the indemnity before agreed upon with Colombia. This intention seemed to result from the fact that the figure had been left in blank on the draft submitted to me.

Mr. Hay said to me that he had no intention of obtaining a reduction of the amount to be paid by the United States.

"Influential Senators had suggested," he added, "that this indemnity should be shared between Panama and Colombia, and I wanted to have your opinion on the subject."

I made strong objections against this proposition. I left Mr. Hay after promising to send him back, the same evening, his draft with my observations, as well as the one I was making on a completely new basis, while declaring myself ready to accept either of them.

In the evening I went to the house of Mr. Hay with the new draft of the treaty.

It was accompanied by the following letter:

"*Washington,*
"*November* 16, 1903.

"DEAR MR. SECRETARY,

"I have been a little too ambitious. I have not yet finished the suggestions, which I propose to submit to you if the frame of the old Hay-Herran Treaty is maintained. I think I shall be able to send them to you at the State Department to-morrow at about 10.30 A.M. I have finished the new draft of a treaty based on the principles which spring out of the situation. You will find it annexed to this letter.

B B

"I take the liberty of repeating that this new form is simply a suggestion to enable you to decide. Your decision will be my pleasure.

"Most respectfully yours,

"P. BUNAU-VARILLA."

When I arrived before the house of the Secretary of State everything was in darkness.

I returned home not wishing to disturb his rest, and the message was delivered early in the morning of the next day (Tuesday, 17th November).

After correcting the suggestions I thought worth while to make to Mr. Hay, if his draft of the treaty was finally adopted, I sent him these documents with the following letter at 10 A.M. the same day (Tuesday):

"DEAR MR. SECRETARY,

"Following my letter of yesterday, which could be delivered to you only this morning, I beg to hand you the enclosed suggestions which I take the liberty of making to you, in case you decide to maintain the frame of the Hay-Herran Treaty.

"If you find justified the spirit which inspired these suggestions I am ready to sign the Treaty either under the form presented to you this morning or under the old form. The old form has the advantage of rendering easier the comparison between the Treaty with Colombia and the Treaty with Panama, and to show the progress made from one to the other. But it has the great disadvantage of bearing the trace of the long diplomatic fight with M. Concha, who never wished to accede to anything in one article without withdrawing it in the next one.

"The new form has the advantage of conferring upon the United States in broad and general terms the rights she is entitled to have; rendering it thus unnecessary to enumerate in an infinity of *cas particuliers*, what right Colombia was generous enough to grant.

"The architecture of the new form bears the trace of the spirit which inspires the convention to-day. It is symmetrical, divided into three logical groups of provisions, and offers infinitely less probability of eventual discussions between the two countries than the old form, which, giving the necessary rights by way of successive enumerations, will always be incomplete.

"I take, Mr. Secretary, the liberty of explaining at length my conception of the subject, but, as I said yesterday, your decision will be my pleasure.

"I am, dear Mr. Secretary, most respectfully yours,

"P. BUNAU-VARILLA."

THE PANAMA DELEGATION REMAINS IN NEW YORK: WHY?

The delegation which had been sent from Panama under the pretence of furnishing me with advice, if I desired it, but in reality to make the treaty themselves, arrived in New York at the very same time that the Department of State received the two final drafts of this diplomatic instrument. It consisted of MM. Amador and Boyd.

With them also was M. Carlos Arosemena, who was coming to occupy the post of Secretary of the Panama Legation at Washington.

He had been one of the first to organise the plot against Colombian tyranny. He was a young man, active and loyal, who became my collaborator and remained my friend.

I sent the delegation a telegram of welcome, apologising for not being able to go and meet them in New York owing to affairs of essential importance for the new Republic.

Its members were probably offended by my absence—though it was my obvious duty to think of the safety of the Republic before everything—and in the afternoon I received this short despatch:

"M. BUNAU-VARILLA,
"*Minister of the Panama Republic,*
"*Washington.*

"We salute you very cordially.

"AMADOR, BOYD."

The delegates did not think it opportune to tell me either their address or the programme of their movements.

The evening papers brought news as to the arrival of the mission. They announced that Mr. Farnham, an employee of Mr. Cromwell, the Company's lawyer, had gone to meet them in the Bay of New York. He had announced to them the arrival of his chief towards midday, by the German steamer coming from France, and had invited them to stay until that moment to confer with him. This obviously was what kept the delegates in New York.

The suspicions which the departure of this mission had generated in my mind were thus being confirmed. Amador was remaining in New York to confer with Mr. Cromwell, instead of coming direct to me to thank me for the enormous services I had rendered him. Less than two months before, he had presented himself to me begging for help, abandoned and in despair, charging Mr. Cromwell with responsibility for the danger in which he and his friends found themselves—danger of discovery and trial for high treason.

This strange fact, if taken in conjunction with the contradictory news as to the object of Amador's mission, enhanced the fears which its arrival inspired in me at the dangerous moment in which we then were.

Later on, however, M. Carlos Arosemena related to me a fact which constituted a partial excuse for Amador.

"It was I," he said, "who advised Amador to answer the pressing request of Cromwell brought by Farnham. I told him that nobody ought to be condemned without a hearing. I added that he should

not make an enemy of Cromwell in the delicate situation in which we were placed."

These reasons were certainly just.

But if the thought had not come to Amador that he might find in Cromwell a support for his secret ambitions he would not have listened to them. He would have thought it monstrous, whatever courtesy he might think prudent to show to Cromwell, to reserve his first visit for him and not for me.

On one side was the man who, he had said, had reduced him to such despair that he had announced his resolution of sacrificing his life to avenge his friends upon him.

On the other, was the man who had saved him and his friends, who had wrested his country from tyranny, who had obtained for it the protection of the United States, and who was preparing for it a fabulous prosperity.

The first official act of Amador was to go not to the latter, but to the former.

It is very clear that he never would have resolved to do so had he not had a powerful motive. This motive was evidently to get support, in order himself to negotiate and sign a treaty which would hand his name down to history. For this childish ambition he did not hesitate to jeopardise all the delicate fabric of my work. He did not hesitate for personal satisfaction to endanger the precious mechanism which had already produced such extraordinary results.

This indeed demonstrated that the passions and interests which at Bogota had nearly destroyed the life of the Canal enterprise, existed in the same degree, but under a different form, at Panama.

It was necessary to act rapidly. I had to shield, from the nefarious influence of these passions and of these interests, the realisation of the supreme event, which I had prepared on the previous day.

The Signature of the Hay-Bunau-Varilla Treaty, November 18, 1903

It was with anxiety that I awaited a summons from the Department of State during the day of November 17. It did not come. Mr. Hay made me no sign. Perhaps he was not disposed to conclude the Treaty so rapidly under either the old or the new form. In the evening I decided to act. I wrote to him :

"*Washington,*
"*November* 17, 1903,
10 h. P.M.

"Dear Mr. Secretary,

"I have not heard from you to-day, and did not dare to appear to be urging you.

"I cannot refrain from respectfully submitting to you that I would like very much to terminate the negotiation and to sign the Treaty to-morrow.

"I feel the presence of a good deal of intrigues round the coming Commission and people hustling towards them who will find great profit in delaying and palavering and none in going straight to the end.

"I beg, therefore, dear Mr. Secretary, that we should fulfil our plan, as originally laid, to end the negotiations now.

"I am writing to the Commission to stay in New York to-morrow and not to leave before evening. In any case I would be thankful to you to call me to-morrow or to-night if this should be convenient to you.

"Very respectfully yours,
"P. BUNAU-VARILLA."

I immediately received Mr. Hay's answer:

"DEAR MR. MINISTER,
"Please come to-night if you prefer.
"Yours faithfully
"JOHN HAY.
"Or to-morrow at nine here, if you like it better."

I hastened to go immediately to see Mr. Hay, and we had a long conference together.

The question of the indemnity was anything but settled. The theory of its division with Colombia was strongly supported by certain eminent Senators. Mr. Hay gave me to understand that my views on the subject were not at all certain of success. He congratulated me on the clearness of the formula which I had adopted, but he gave me no hint either as to the moment when the agreement would be reached, or as to the project that would be chosen, or as to the final question of the indemnity.

We agreed on the question of ensuring the neutrality of the Canal and the perfect equality of toils for all nations including America, as well as the justice and equity in the fixation of tolls and conditions of transit, without any privilege for the American flag or any other.[1] These principles had been those adopted in the Treaty with Great Britain, the Hay-Pauncefote Treaty of 1901, which referred exclusively on this point to the Convention of Constantinople of 1888 concerning the Suez Canal.

Mr. Hay, as well as myself, desired that that Convention should become, in a permanent way, the directing principle of the operation of the Panama Canal. The simplest formula, the one which we adopted, was to embody the very stipulations of the Hay-Pauncefote Treaty in the Treaty granting the concession of the Canal rights to the United

[1] The article referring to that particular question was the only one I had not entirely completed in my project, as I did not desire to make a reference to the Hay-Pauncefote Treaty without Mr. Hay's concurrence.

States and thus to make the observation of these stipulations one of the conditions of this grant. This was equivalent to incorporating the Convention of Constantinople into the very title of the Concession of the Panama Canal to the United States, since the Hay-Pauncefote Treaty thus formed merely a bridge between these two International Treaties.

I condensed my impressions as to the necessity of acting rapidly in the following words :

" So long as the delegation has not arrived in Washington, I shall be free to deal with you alone, provided with complete and absolute powers. When they arrive, I shall no longer be alone. In fact, I may perhaps soon no longer be here at all."

On the following morning, I deemed it necessary to restate to Mr. Hay in writing what I had said on the question of an eventual partition of the indemnity between Panama and Colombia.

I was aware that his elevated and straightforward mind could not accept without repugnance a mercantile conception of this order. I was likewise aware that certain leading Senators were energetically in favour of this absurdity.

My desire was to put into Mr. Hay's hands a document which would allow him to say to his contradictors what they ought to hear without his having to take the responsibility for it. I addressed to him the following letter, early on the morrow :

" *Wednesday Morning,*
" *November* 18, 1903.

" DEAR MR. SECRETARY,

" Will you allow me to condense the somewhat loosely expressed ideas I submitted to you yesterday on the question of reserving for Colombia against a quit claim a part of the $10,000,000 which are to be paid to the Republic of Panama by the United States ?

" This, in my opinion, would create two independent impressions.

" *First : Impression on the world in general.*

" Any man who pays something that he does not owe is immediately thought to be paying under the pressure of blackmail.

" Any man who pays under the pressure of blackmail is immediately thought to be paying on account of a concealed crime.

" This would be the immediate opinion of the world if the United States is beheld to be declaring at the same time that she had no hand in the Isthmian Revolution, and is therefore under no liability to Colombia for damages, and simultaneously to be paying a heavy sum to get rid of the claim of Colombia.

" The only possible interpretation would be : a public confession of breach of international faith.

" *L'Enfer est pavé de bonnes intentions ;* he who imagined good-heartedly this fine solution is a master in *paving the lower regions.*

" *Second : Impression on Spanish Americans.*

" To the demonstration which would result thus from such an action,

namely, the admission of the United States to having played a Machiavellian trick upon Colombia, would be added in Spanish American hearts the incurable and bitter resentment of the insulting offer of a little money compensation for a patriotic wrong.

"In a case like this, the rules applicable to treaties of peace after a war would not be justified. In a treaty of peace money questions come in natural order with other conditions. But in this case, when the United States maintains, with perfect justice and absolute propriety, that she has not done anything else but what was her rigorous obligation according to her treaty duties and to the rules of international law; and when immediately afterwards she appears to confess in fact what she denies in theory and offers a lump sum of money to heal the wound and to redress the wrong; she would be adopting an attitude which would be a direct offence to the sentiment of dignity and to the natural pride of all Spanish Americans. It would amount to a slight which would be felt from the frontier of Arizona to the Straits of Magellan.

"No! Really I cannot imagine any move more dangerous and more impolitic than such a one.

"Pallas Athené would be replaced by a female broker of suspicious dealings.

"On reading over the text of the *new* draft of that treaty I propose two additions in Article VII. . . .

"With these additions the new draft, if you think it satisfactory, should be adopted so as to begin the construction of the Canal with a homogeneous instrument not recalling the 'Erreurs' of Concha.

"Most respectfully yours,
"P. BUNAU-VARILLA."

This letter probably had the desired effect at the luncheon to which on the same day Mr. Hay invited the most influential Republican Senators and at which the question was thoroughly examined.

In the afternoon of the same day, I received from Mr. Hay the following note:

"DEAR MR. MINISTER,
"Will you kindly call at my house at six o'clock to-day?
"Yours sincerely,
"JOHN HAY."

By a singular slip of the pen this letter was dated November 19, instead of November 18.

I arrived at the hour stated at the private residence of Mr. Hay.

Two reporters of great newspapers were mounting guard at the door.

They hurried to me as soon as I left my carriage.

"You are going to sign the Canal Treaty, Mr. Minister," they said.

"You seem to be much better informed than I am," I answered. "Why do you suppose that?"

"Well," said they, laughingly, "if you must know all, Mr. Minister, scarcely five minutes ago the head of the Treaties Bureau at the

Department of State entered Mr. Hay's house. Now you arrive. This shows you are to sign the Treaty."

Mr. Hay received me with an unwonted solemnity. He employed repeatedly the word "Excellency" in speaking to me; this he had never done before.

"I have requested you," he said, "to be so good as to keep this appointment in order to sign, if it is agreeable to Your Excellency, the Treaty which will permit the construction of the Interoceanic Canal."

I answered in the same tone:

"I am at the orders of Your Excellency to sign either of the two projects which, in Your Excellency's judgment, appears best adapted to the realisation of that grand work."

"The one that appears best adapted to that end," replied Mr. Hay, "not only to myself, but also to the Senators, who will have to defend it in the Senate, is the one Your Excellency has prepared.

"In its text we have not found it necessary to make the slightest modification, save for an insignificant question of terminology on one single point.

"At Article II instead of the words '*leases in perpetuity*' we have preferred to say: '*grants to the United States in perpetuity the use, occupation and control.*'

"You see," said Mr. Hay, "that from a practical standpoint it is absolutely synonymous.

"No other change has been suggested. As to the question of the equality of all the flags, the American flag being naturally included among them, the simplest thing, as we have agreed, is to state that the Canal will be operated in accordance with stipulations of the Hay-Pauncefote Treaty, which means that it will be governed by the principles of the Convention of Constantinople.

"If Your Excellency agrees to it the Treaty will now be read and we will then sign it."

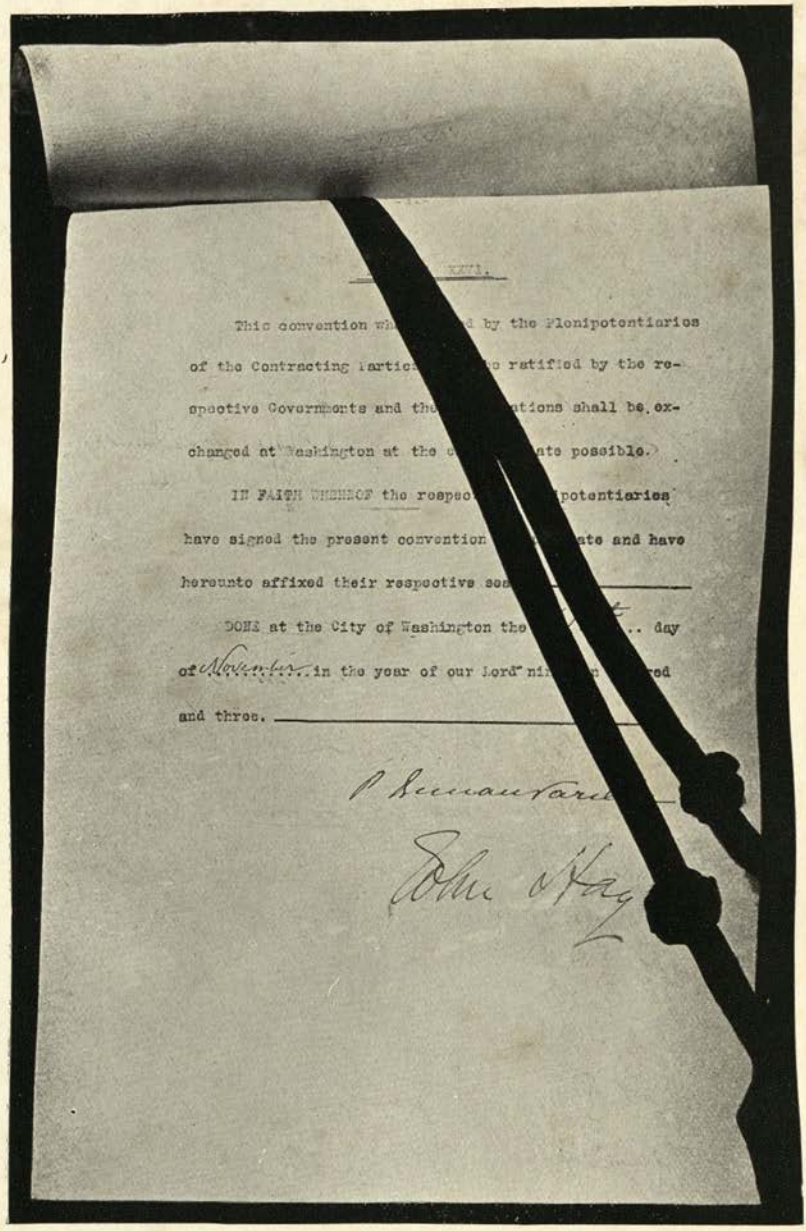
I had the reading abridged as far as possible as it was a mere formality.

"Did you bring your seal, to put it upon the document?" asked Mr. Hay.

"I did not expect this event," I answered, smiling. "I am taken by surprise."

"Well, this is very curious," replied Mr. Hay. "It is exactly what happened to Lord Pauncefote two years ago; as it is exactly two years to-day that we signed the Hay-Pauncefote Treaty—on November 18, 1901.

"I then proposed to him to use as a seal the signet ring which Lord Byron wore when he died at Missolonghi, the ring I am now wearing.



XXVI.

This convention wh[illegible] by the Plenipotentiaries of the Contracting Partie[illegible] be ratified by the respective Governments and the [illegible]ations shall be exchanged at Washington at the [illegible]ate possible.

IN FAITH WHEREOF the respec[illegible]potentiaries have signed the present convention [illegible]te and have hereunto affixed their respective seals.

DONE at the City of Washington the [illegible].. day of November in the year of our Lord ni[illegible]red and three.

P Bunau Varilla

John Hay

REPRODUCTION OF LAST PAGE OF THE HAY-BUNAU-VARILLA TREATY

That is what he did. I now offer you either the same signet ring or another with my family arms. Which do you prefer ? "

The choice was a difficult one. I had not a long time to think it over.

"The share which Your Excellency has in the accomplishment of this great act determines my choice. I shall be happy that the Treaty, due to your generous policy, should bear at the same time your personal seal and that of your family."

At 6.40 we apposed our signatures, and the Treaty which had been drawn up in fourteen hours two days previously; the Treaty which was to ensure the junction of the oceans, without receiving the slightest modification, and which was to remain intact in spite of the desperate efforts of political parties to tear it to pieces, had become an accomplished fact.

Mr. Hay then took the pen which in a few seconds had fixed the destiny, so long in the balance, of the great French conception, and offered it to me :

"It is just that Your Excellency should keep, in memory of this Treaty which you have devised, the pen which we have used in signing it."

We separated not without emotion, and I hastened back to my hotel to wire the news of this all-important event to my Government.

As I crossed the threshold a despatch was handed me from New York. It announced the arrival of the delegates at Washington the same evening. They could come, now that everything was accomplished !

At 7.15 I gave in at the telegraph office the following despatch :

DE LA ESPRIELLA,
"*Minister Exterior Relations,*
"*Panama.*

"To-day Wednesday at 6.40 p.m. I signed with Secretary of State Hay, the Panama Canal Treaty with same political and financial conditions as in the Hay-Herran Treaty, with necessary simplifications referring to jurisdictions and analogous stipulations.

"Amador, Boyd, Arosemena left New York for Washington at 4.50. They will arrive in about two hours.

"I congratulate Your Excellency, the Government, and the people on the happy termination of this difficult but great event.

"BUNAU-VARILLA."

THE PANAMA MISSION ARRIVES AFTER THE SIGNING OF THE TREATY

On the arrival of the train I greeted the travellers with the happy news !

"The Republic of Panama is henceforth under the protection of the United States. I have just signed the Canal Treaty."

Amador was positively overcome by the ordeal. He nearly swooned on the platform of the station.

His consternation, as well as that of Mr. Boyd, when confronting a happy event which ought to have filled their hearts with joy, was clear evidence of the nature of the sentiments in which they had arrived. It was certainly high time to conclude the agreement with the United States when the Treaty was signed. A delay of several hours would have sufficed to involve the difficult enterprise in the danger zone of personal ambitions and intrigues.

On the following day, when I received the documents they had brought me, I was able to read the parts I have quoted above, and which established the certainty of the little plot to which I was to fall a victim. It gave me some amusement to embarrass Amador and Boyd by showing them the difference between what had been cabled to me by the Government after their departure about the purely passive part they had to play, and the unacceptable subordination which the written instructions they brought entailed upon me.

But fortunately that was all ancient history. The Treaty was made.

Mr. Boyd then pretended that fresh negotiations on certain points would have to be opened with the Department of State. They were of the nature and of the importance of the following: "Will the lands of the Manzanillo Island on which the town of Colon is built continue to belong to the Panama railroad?"

"Cherish no illusion, Mr. Boyd," said I, "the negotiations are closed. It belongs now exclusively to the Senate of the United States, and to the Government of Panama, either to accept or to reject this Treaty. Besides, the point you raise is a question of secondary importance and does not belong to a treaty. Such matters must be settled by the courts, as an international treaty has nothing to do with them.

"Moreover, all that has been done by me was in strict accord with the powers given to me by telegraphic correspondence. According to this correspondence you have come to hold yourself at my disposal if I meet with any difficulty which I should be unwilling to settle alone.

"Having encountered no such difficulties, I had no need to consult with you, and therefore I had not to wait for you.

"The written instructions which you bring, and which tell me *to do nothing without your consent* about the Treaty, are now null and void, as everything is finished.

"Even if everything were not finished, the written instructions which you have brought should be considered as cancelled by the

subsequent decisions of the Government as expressed in their repeated cablegrams to me.

"You have, therefore, neither in law nor in fact any reason for intervening, so long as I do not ask for your advice."

Amador was the first to accept the inevitable. After Mr. Pavey, whom I had appointed Counsel of the Legation of Panama, had read the Treaty, Amador exclaimed :

"At last there will be no more yellow fever on the Isthmus."

The conscience of the old physician had surmounted the ambitions of the politician.

In the evening of November 19 at 10.55 I received a telegram from M. de la Espriella saying :

"Your Excellency is requested to inform us of the cause which led you to sign the Treaty before conferring with the delegates Amador and Boyd. Communicate to us the modifications introduced."

I postponed my answer until the following morning. I wanted to have the matter thoroughly thrashed out with Amador and Boyd before sending it.

I had no need to do so, as at 9.4 the next morning I received the following telegram :

"Explanation received from Amador-Boyd on the powerful reason which made you sign the Treaty annuls anterior cable sent to-day on this subject to Your Excellency.—ESPRIELLA."

This showed that the delegates had resigned themselves to their disappointment. They had justified my resolution before the Government of Panama.

THE PANAMA MISSION REFUSES IMMEDIATE RATIFICATION

The essential point, namely, the signature of the Treaty, was attained. The first danger, that of the Amador mission, had been obviated by the completion of the agreement with the United States. There remained the danger of the Reyes mission.

To paralyse the action of General Reyes it was necessary before his arrival in Washington to make a fresh step forward. It was necessary to place before him not only a signed Treaty, but a Treaty ratified by Panama.

My first thought was that the authority which the Amador mission derived from its title as an official delegation of the Government could be utilised for the ratification. Probably the same thought came also to Mr. Hay, as on the day that I went to introduce Amador and Boyd to him he asked them the same question.

They answered with indifference that they had no authority, and that it was necessary to send the Treaty to Panama.

I detected a slight tension on the expressive face of Mr. Hay.

Evidently he was hurt by the lack of promptitude on the part of the delegates to meet him half-way on so important a subject.

This attitude displeased me also very much, and I wondered at that moment if the era of difficulties was really ended, as I had thought.

After leaving the Department of State I made it clear to the delegates that their lack of good grace had left a decidedly bad impression.

I requested them, as they approved of the Treaty, to ask for special powers for its immediate ratification, without leaving it to the Government to approve and disapprove it later on. They formally refused.

My suspicions increased. I resolved to obtain the ratification from the Government itself, before the arrival of the Treaty at Panama, in spite of the delegates' bad grace.

As the delegates had nothing more to do in Washington, we separated on the evening of Friday, November 20.

I went to New York, whence I sent a long despatch to the Panama Government on Saturday, November 21.

"DE LA ESPRIELLA,
"*Minister of Foreign Relations,*
"*Panama.*

"I am at the Waldorf Astoria until Tuesday. I left the Commission at Washington, where they stay to-day spending Sunday Baltimore, and arriving Fifth Avenue Hotel, Monday.

"The reception of the Commission by Secretary of State Hay, and after by the President of the Republic, was extremely cordial.

"Everything would be for the best if it were not for the ratification of the Treaty, which I thought would be within the province of the Commission and could be done immediately.

"As it is not within the power of the Commission, and as this one, being moved by respectable considerations of delicate susceptibility, has declined to ask the Government for such powers, we have notified Secretary Hay that the Treaty would be sent by the mail steamer of next Tuesday, arriving at Colon on December 1; and that the Commission would recommend with all its might the immediate ratification by the Government and the immediate expedition of telegraphic instructions, so that I may notify ratification to Government here.

"This system, though inspired by the best intentions, caused a bad impression because the Government of Washington is accused by its own enemies and those of the Canal to have acted with an undignified haste in its recognition of the Panama Republic. These enemies make much of the fact that the newborn Republic displays less haste and wants to accomplish detailed formalities.

"The slight moral wound which results therefrom is demonstrated by the decision, which was just taken, not to send the Treaty to the Senate before its ratification by the Panama Government.

"Outside of preceding considerations, as the telegraphic news of the

ratification cannot arrive before the 2nd or 3rd of December, if the arrival of the original copy of the Treaty by the mail steamer is expected, the Presidential message to Congress, which must be terminated and forwarded on the 1st of December, will not touch upon the Panama question. This is to be deplored, as it puts the Government here in a rather false position before the public, for having stepped forward with great haste and for not meeting the same attitude on the other side.

"For all these capital reasons, and without consulting the Commission, I take the liberty of proposing to your Excellency that the Government should send by cable ample powers to the Commission, so that on their behalf and with their authority they could ratify the Treaty immediately.

"I add that if the Government adopts this solution it will be convenient that your Excellency should notify it to the American Consul, a thing which, though in contradiction to diplomatic uses, would be appreciated as a manifestation of courtesy. It will be also convenient that your Excellency should telegraph direct to Secretary of State Hay, and should express to him that our Government desires immediate ratification. The Government can justify such a direct telegram by the necessity of transmitting immediately the desire of the Panama Government, without the delay necessitated by passing through the legation.

"In order to facilitate the Government's taking an immediate decision on this essential question I give here a summing up of the absolutely exact spirit of the various articles of the Treaty under my personal guarantee.

"Article I. The United States guarantees and will maintain the independence of the Republic of Panama.

"Article II. The Republic of Panama grants to the United States, etc."

[The analysis of all the articles of the Treaty followed.]

The cablegram ended by a request to send me the answer to the Waldorf Astoria.

The evening passed without any answer. On the day following (Sunday, November 22) nothing came. All day Monday I waited without any tidings.

At last in the evening of Monday at 9.48 arrived the reply of M. de la Espriella. It was negative.

The conflict had begun. This Treaty, which was indispensable in the form which I had given to it; this Treaty, which, from a practical point of view, was identical for Panama with the Hay-Herran Treaty, and which imposed upon the United States the obligation of waging war against Colombia for the protection of the authority of the new Republic on territories far away from the Canal, and therefore independent of the work to be accomplished; this Treaty was met with a cold reception at Panama.

The following day the country would be declared in danger; two days later the Government would commit suicide under the pressure of tropical oratory!

The sequence was logical and inevitable. In what measure had the Amador-Boyd delegation intervened to open the dangerous way to such eventualities? I never knew exactly; but the long and

unprecedented delay that had elapsed between the request to Panama and its answer, indicated, apart from other considerations, that the delegation had been consulted, and that they had answered in such a way as to encourage the negative reply to my request.

The moment was critical. A strong measure was necesary to prop up the building which was beginning to crack and was likely to collapse.

On the one hand was the dissatisfaction of Mr. Hay, confronted by the ungrateful and suspicious policy now being manifested at Panama as it had been manifested at Bogota.

On the other hand were the intrigues and the personal ambitions of various individuals at New York and Panama. Certain of them cherished the hope of making a new treaty and of attaching their names to it in one quality or in another. All that was certainly bound to widen the fissures. The intrigues of Colombia, coupled with those of the enemies of any canal whatever and of the friends of Nicaragua, were going to open new ones, and the total collapse would become inevitable.

The fear of responsibilities can be cured by homœopathic treatment: the fear of still greater responsibilities. I resolved to apply the remedy. But it was already Monday night. It was necessary to prepare to send off the Treaty on the following morning by the mail steamer and to return to Washington afterwards. I therefore postponed until Wednesday the necessary decision, in order to deal with the more urgent business.

During the day I had bought a safe to hold the precious document, and I had provided myself with the flag of the Republic of Panama.

The delegation was showing no cordiality whatever, and its courtesy was now the barest politeness.

Amador and Boyd had arrived at New York on Monday. They had not informed me of their return. I vainly tried to find them during the whole day, for I desired to settle for the following day the ceremony of the despatch of the Treaty. I finally wrote to them that I would call upon them before dinner—about six o'clock.

I arrived just after six o'clock; they had both gone out without leaving the slightest apology.

I acted as though I had not noticed their strange behaviour, and I wrote to them to be kind enough to meet me on the following day (Tuesday, November 24) at nine o'clock in room No. 1162 of the Waldorf Astoria.

It was there that my first conversation with Amador had taken place on the 24th of September. It was from there that on the 24th day of November, just two months later, the "Charter of the Straits of Panama" was solemnly forwarded towards that Isthmus, the

liberation of which had been prepared between the modest four walls of this hotel room.

I almost expected that the appointment would not be kept.

That was not the case, however. Amador and Boyd were punctual. They were, with my young son Étienne and myself, the only witnesses of the ceremony. The Treaty was placed in an envelope, which I sealed with the family crest of John Bigelow, as I wished thus to associate this great mind and this faithful and constant supporter of the Panama idea with the despatch of the final instrument of its realisation.

The flag of Panama was wrapped around the envelope and the whole was placed in the safe, which was then filled up with cotton wool.

The safe, after being in its turn sealed, was transported by the delegates and myself on board the steamer *City of Washington*, which raised anchor at 1.30 P.M. for Colon.

With the Treaty, I despatched by the same steamer a letter to M. de la Espriella, in which I said that I thought I had accomplished the principal part of the duties I had assumed.

I added that I would have sent in my resignation by wire at the same time as the Treaty had I thought there were no more dangers ahead.

I further stated in this letter of November 24 that my decision was to remain at my post until the exchange of the ratification of the Treaty, but no longer.

FORMAL DEMAND: YOU RATIFY OR I RESIGN!

These measures taken, I returned to Washington, decided to shake off the web which I felt was being woven about me. Evidently the Government at Panama was doing nothing without the delegation, which, in its turn, having arrived with the intention of conspiring against me, was continuing its work.

Not having been able to prevent the signature of the Treaty it was around the ratification by Panama that its enemies were preparing their snares. Reyes was soon to arrive and his agents were preparing his work by obstructing mine. The delegation was probably the unconscious instrument of the most dangerous plot against the new Republic.

I therefore resolved to show the Government of Panama whither it was being led, and to demand from it a loyal attitude and an immediate ratification.

I sent, on the evening of Wednesday, November 25, the blunt cablegram which follows:

"DE LA ESPRIELLA,
"*Minister of Exterior Relations,*
"*Panama.*

"Discipline makes me submit to decision of Government referring to immediate ratification requested by my long telegram of Saturday. However, my very high sense of need for vigilance obliges me to inform Your Excellency about peril every day increasing which results from coldness shown by Government of Panama at the signature of a Treaty which makes a reality of the three essential aims of the Revolution:

"First, the protection of the Republic by the United States.

"Second, the construction of the Panama Canal.

"Third, the grant of the financial advantages formerly awarded to Colombia.

"This coldness on the part of Panama after the signature of a Treaty which the United States justly considered as generous for Panama has caused surprise in the high spheres which, as hours are passing, degenerates into indignation.

"I know the extremely difficult ground of Washington. The peril may not be apparent for others, but I affirm it to be very great and that at any moment a brilliant victory may be transformed into a crushing defeat.

"I reiterate my cablegram of Saturday.

"If the Government maintains its decision I pressingly beg Your Excellency, in the name of the most essential, and of the most vital, interests of the Republic, that the Government should at least cable me immediately, in the same form in which my powers were conferred upon me, the substance of what follows:

"Whereas the Treaty is accepted by Amador and Boyd, whereas the extract given by my telegram is eminently satisfactory for the vital interests of the Republic, the Government authorises me officially to notify to the Government of the United States that the Treaty will be signed and finally ratified by the Government of the Republic at Panama on the arrival of the document at Colon.

"If the Government does not think possible to take this minimum but sufficient step, I do not wish to appear responsible for the calamities which certainly will result from this situation; the most probable being the immediate suspension of the protection and the signature of a final treaty with Bogota in accord with the constitutional laws of Colombia in case of war.[1]

"In such case I beg Your Excellency to present my resignation to the Government."

"BUNAU-VARILLA."

This time I hit the mark. The Government of Panama was at last liberated from the morbid influence of its delegation.

Most probably at the wise suggestion of Arango, its President, the following day, Thursday November 26, I received the cablegram I had demanded:

"BUNAU-VARILLA,
"*Minister Plenipotentiary of the Republic of Panama,*
"*Washington.*

"In view of the approval given by the delegates Amador Boyd to the Canal Treaty, your Excellency is authorised to notify officially to

[1] The plan which Reyes was bringing to Washington.

the Government of the United States that said Treaty will be ratified and signed as soon as it is received by the Provisional Government of the Republic.

"J. A. ARANGO,
"TOMAS ARIAS,
"MANUEL ESPINOZA.

"ESPRIELLA,
"*Minister of Exterior Relations.*"

The Government of Panama was henceforth positively bound.

I replied on the same day at five o'clock to M. de la Espriella:

"The energetic provident decision of the Government saves an imperilled situation and assures triumph.

"I beg Your Excellency to transmit my respectful congratulations to the Government.—BUNAU VARILLA."

On the following day, November 27, I received this cablegram, which showed a complete change in the disposition of the Government.

"BUNAU-VARILLA,
"*Minister Plenipotentiary, Republic, Panama,*
"*Washington.*

"The situation is saved, the triumph is assured according to your cablegram of 26th.

"Please communicate whatever other question of affairs presents interest for Republic, so that we may help you to solve them by our co-operation and instructions.

"ESPRIELLA."

The intrigues of which the delegation had been the centre, and the ill-will they had been led to show me, were not to trouble me any longer. Its negative action was broken.

The Panama Government turned henceforth towards me, as towards its natural guide, I had no longer any reason to doubt its loyalty.

NOTIFICATION OF PROMISE OF RATIFICATION: REYES ARRIVES JUST TOO LATE

On the same day, November 27, I officially notified to the American Government the cablegram received on the preceding day, containing the formal and explicit pledge of the Panama Government given in the form of a decree to ratify the Treaty as soon as it should arrive. I added that I assumed this obligation on behalf of the Panama Government towards the United States Government.

The Treaty was, therefore, ratified before its arrival on the Isthmus on December 1, and the United States had been duly notified as early as November 27.

On the 28th of November, that is to say, the following day, General Reyes arrived in Washington.

The rapidity with which President Roosevelt and Secretary Hay had acted had allowed me to place before the Panama delegation on its arrival a definite and already signed Treaty.

The very same result was obtained for the delegation of Colombia. Before its arrival a solemn pledge of ratification was in the hands of the American Government.

The work was accomplished before the enemy's arrival on the battle-field. The fortifications were erected and the lines of defence were placed in perfect conditions of resistance.

It was indeed certain that furious assaults would be ma
I was in a condition to resist them victoriously.

CHAPTER XXX

FORMAL RECOGNITION BY THE POWERS AND PUBLIC OPINION AMONG THE NATIONS

BUT General Reyes was not only to find on his arrival a treaty already ratified by Panama.

RECOGNITION BY FOUR POWERS

I had not only placed General Reyes in face of the decisions of the Government of the United States and of Panama. I had obtained in a tangible form the quasi-unanimous approval of the Panama revolution by the civilised world.

The advocates of the nefarious Colombian policy which provoked and legitimised the revolution are even to-day clamouring for an international arbitration.

They refuse to remember that the highest international tribunal, the jury composed of the Governments of the great nations, has explicitly pronounced its sentence on this question.

The decree of this court was formulated at the very moment when the policy of spoliation of Bogota had received its castigation by the secession of Panama.

It expressed itself in the shape of the immediate recognition of the new Republic by all the great nations of the earth.

This testimony of spontaneous and unanimous cordiality is as far as I know unique in the annals of history. It constitutes the final judgment, a judgment without appeal, pronounced by all the Governments of the earth against Colombia, when they beheld the clear facts of her case.

When General Reyes arrived, on November 28, the Panama Republic, born twenty-five days previously, had been recognised by the United States on the 13th, by France on the 16th, by China on the 22nd, and by Austria-Hungary on the 27th, of November.

The greatest Power on the American Continent, the greatest Power on the Asiatic Continent, two of the greatest Powers on the European Continent had already pronounced. The United States through her

Secretary of State, others through their respective Ambassadors, had notified me that they recognised the Republic of Panama. They simultaneously inaugurated with me, as Panama's Plenipotentiary, their diplomatic relations.

Germany acted in the same way on the 30th of November, Russia on December 7. Alone among the Great Powers, England, Japan, and Italy lingered a few weeks longer. England's delay was caused solely by the wailings of the Colombian National Debt bondholders. They had discounted the payment of ten million dollars, a good share of which they hoped would be applied to partial reimbursement of these bonds which rarely if ever had produced any interest. Colombia, like the hero of Beaumarchais, preferred never to pay her debts rather than to repudiate them even for a single instant.

As soon as I declared to the British Ambassador on December 26 that Panama would assume her share of the Colombian debt, in proportion to the population of the respective Republics, the question was settled. On the very same day he notified me the recognition by Great Britain of the new Republic. Two days later the Ambassadors of Japan and Italy made me the same notification.

In the interval the lesser Powers had followed the lead. In Europe, Denmark, Sweden and Norway (then united), Belgium, and Switzerland had recognized Panama; on the American Continent, Nicaragua, Peru, Cuba, and Costa Rica protested in this way against the policy of Colombia, and approved the deserved castigation this policy had received.

This rapid sketch explains on what a solid footing I had placed the Panama Republic during the short space of time required to telegraph the news to Bogota, and for General Reyes to travel from Bogota to Washington—that is to say, during a space of twenty-five days.

From the American point of view, the Treaty providing for the protection of the new Republic was signed by both parties and virtually ratified by one of them in spite of the intrigues woven in order to prevent the first ratification.

From the point of view of the world's Governments, four great Powers had already spontaneously extended the hand to her and had admitted her into the Family of Nations.

From the financial point of view I had given her for representative Pierpont Morgan & Co., the greatest Bank in America, and the most celebrated in the world.

All that had been realised before the arrival at Washington of the emissary of Colombia. Twenty-five days only had elapsed since the creation of the new Republic when General Reyes arrived to find all these results obtained.

It is expedient, however, before pursuing the history of the fruitless

efforts made to beat and storm the solid fortress I had erected to describe now the mechanism of its construction. With this object in view we must return to earlier events.

COLOMBIA JUDGED AND CONDEMNED BY THE NATIONS

It is necessary to expose by what process these universal marks of sympathy for the new Republic were obtained.

Their real significance is contained in the text of the letter of notification which I sent to all of the Ambassadors, Ministers, Plenipotentiaries, or *Chargés d'affaires* accredited at Washington.

Here is the one I addressed to Count Cassini, Ambassador of Russia, Dean of the Diplomatic Corps. The others were written identically on this model. I sent this letter on November 16 as soon as the official recognition by France had become an accomplished fact, as will be related later on :

" *Washington, November* 16, 1903.

'To HIS EXCELLENCY, COUNT CASSINI,
" *Ambassador to His Majesty the Emperor of Russia at Washington.*

" MR. AMBASSADOR,

" The Government of the Republic of Panama has entrusted to its Minister Plenipotentiary near the Government of the United States the mission of notifying to the Government of His Majesty the Emperor of Russia, through the intermediary of Your Excellency, the formation of the Independent and Sovereign State of Panama.

" In thus fulfilling towards Your Excellency the agreeable duty devolved upon me, I allow myself to call his attention to the elevation of the motives, which have justified the overthrow of the anterior state of things.

" The people of the Isthmus of Panama have exercised the most indisputable and the most legitimate of natural privileges in breaking with Colombia a bond which, at its origin, was to be purely federal, and the maintenance of which was to be subordinated to the free consent of the parties.

" This federal bond was modified by Colombia, contrary to the original agreement.

" Since the Revolution of 1885 the latter has, without the consent of the people of the Isthmus, suppressed the federal form and established a centralised Government which has despoiled the State of Panama of its title of Sovereign State and the privileges attached to it.

" Recently the events have established that the action of Colombia was tending to put in jeopardy not only the very elements of the life of the people, but also the destiny which the manifest decision of Providence assigned to it.

" The justice of our cause, the peaceful and majestic way in which the popular liberties have been conquered, the care of the obligations of my Government towards foreign citizens, have justified the kind and affectionate action of the Government of the Republic of the United States, and of the Government of the Republic of France, which have already, in an official manner inaugurated their diplomatic relations with the Republic of Panama.

"I allow myself to hope, Mr. Ambassador, that the same consideration will justify similar action on the part of the Government of His Majesty, the Emperor of Russia.

"I have the honour, Mr. Ambassador, to present to Your Excellency the assurances of my highest consideration.

"P. BUNAU-VARILLA."

The text which I have just reproduced expresses clearly the principles I invoked when speaking on behalf of the Republic of Panama.

The immediate and favourable answer of the Governments of the Great Powers sufficiently expresses that these principles were approved without reserve.

I have, therefore, the right to say to-day that the claims of Colombia as to a pretended breach of her sovereign rights as well as of the obligations of the United States towards her, have already been submitted to the verdict of the Nations.

Colombia has been rightly condemned by a jury formed of the Nations of the World. This verdict is without appeal.

RECOGNITION BY FRANCE

It may be remembered that the powers attributed to me concerned solely the diplomatic representation to the Washington Government. The circumstances which caused my mission to be enlarged in order to embrace the representation of the Republic to all the Governments of the world must now be explained.

As soon as I had been received in solemn state by the President of the United States I wished to affirm my sentiments of filial respect towards my country, France, whose moral interest was the prime mover of all my acts.

I addressed to M. Jusserand, the eminent Ambassador of the French Republic at Washington, the following letter:

"*Washington, November* 13, 1903.

"MR. AMBASSADOR,

"I take the liberty of requesting you to receive my official visit immediately after having placed my letters of credence in the hands of His Excellency the President of the United States of America.

"I am certainly the faithful interpreter of the Government and of the people of Panama, when I direct my first steps towards France after the consecration of the Republic of Panama as a Sovereign and Independent State.

"The people of Panama remember that the French citizens, answering the generous appeal of the great De Lesseps, have, thanks to a gigantic effort, overthrown more than half of the barrier which separates the oceans.

"In choosing for her flag the three illustrious and symbolic colours of the French and American flags, the Republic of Panama has wished to express that she divides her gratitude between the two great Nations,

whose hearts will have once more communicated in a fruitful and sublime service rendered to civilisation and humanity.

"She will share her filial love between the mother of the American nations—the Republic of the United States, and the mother of the Latin nations—the French Republic.

"They will have engraved on her soil their intellectual and moral unity by the accomplishment of the grandest of the works of man, and sealed for the third time the alliance of their genius.

"I have the honour of, etc.,

"P. BUNAU-VARILLA."

While I was waiting for the Ambassador to inform me that he was ready to receive this official visit, I went in a purely private character to see M. Jusserand. I did not fail to mark clearly the distinction at the outset of the conversation.

M. Jusserand gave me to understand that the French Government had inquired into the dispositions of the Panama Government as to the question of the extension of the Canal concession granted by Colombia and now treated by her as doubtful.

I was powerless to act directly, but I desired closely to watch and superintend these negotiations in order to accelerate them. I then thought that the Panama Government delegation, which was on its way for Washington, might usefully employ its leisure in negotiating the recognition by the Powers. I proposed on the following day (November 14) to give them full powers to do so.

The answer of the Panama Government was immediate and decisive. It probably desired to wipe out the bad impression which its hesitations as to the real purpose and powers of this delegation had caused me.

On November 15 I received from the Minister of Exterior Relations the following cablegram:

"As Amador and Boyd (the delegation) have no diplomatic character it belongs to Your Excellency to negotiate the recognition of the Republic of Panama with the representatives of the Powers at Washington.—ESPRIELLA."

The same day I had a second personal interview with the Ambassador of France. He informed me that the Foreign Office in Paris was displeased with the attitude of the Government at Panama. According to the information received the question of the extension of the Canal concession to the French Company did not seem to be treated in the spirit of fairness which was expected from the new Government.

Certainly no one at Panama had any evil intention as to this question. Yet a discordance was creeping in on this essential point.

This simple fact shows to what dangers the whole enterprise might have been exposed if I had left the much more complicated question of the Canal Treaty to fall into inexpert hands like those of the delegation.

With what joy would intriguers have taken advantage of their ignorance and prejudices to confuse affairs and wreck everything in the interest of Colombia or of the enemies of the Canal! I immediately asked by cable from the Government of Panama, in the following terms, absolute authority to settle the question of the French concession of the Canal with the Ambassador of France:

"The French Government wants before recognising officially the Republic of Panama that it should be made manifest by the Republic of Panama or by its accredited Minister Plenipotentiary that the French interests in the Canal question will be guaranteed, and their rights maintained."

In order to destroy any possible intrigue against French interests, and to show the Panama Government that its duty was, as always, on a level with its interests, I added:

"It is extremely urgent for clearing the question here that the recent action of the American Government be followed by a similar action from France, and that the Republic of Panama be recognised by the latter."

I then gave the text of the powers which I requested, and which I received on the following day, the 16th November. At the same time came a new cablegram reiterating that I was authorised to negotiate the recognition by all the Powers represented at Washington.

I could then write to the Ambassador of France—which I did on the same day, November 16—the following letter, which settled the whole question without possible misconception:[1]

"MR. AMBASSADOR,

"My Government has just given me by cablegram ample powers to declare on behalf of the Panama Republic to the Government of the French Republic, through the kind intermediary of Your Excellency, that the Republic of Panama binds itself solemnly, expressly and definitely to protect with vigilance the French interests; to maintain and to interpret in the sense most favourable to French interests all contracts of good faith passed between French citizens or corporations and the Government of Colombia before the third day of the present month of November, date of the proclamation of the Independence of the Isthmus of Panama, which contracts if referring to the territory of the Isthmus follow the transmission of sovereignty and are to-day consequently contracts binding the Republic of Panama.

"Among these contracts of good faith are more particularly those passed between the Republic of Colombia and either the Universal Interoceanic Canal Company or the liquidation of the said company, or the new Panama Canal Company.

[1] This letter was later on read at the tribune of the French Chamber of Deputies by M. Delcassé, Minister of Foreign Affairs. It formed part of his answer to a question put to the Government as to the recognition of the Republic of Panama. Nobody ever censured the Government so long as the work of Panama was sinking deeper and deeper into oblivion and death. That did not call forth any emotion, but it seemed as if its resurrection exasperated certain people.

"All these contracts will be respected and religiously maintained, especially the last one in date referring to the extension of the concession until 1910.

"In spite of the unjustified criticism to which this latter agreement was subjected, the Republic of Panama considers it as a judicial bond, as indisputable as it is unbreakable, and which nobody could attempt to sever without manifest bad faith.

"Please to accept, Mr. Ambassador, etc., etc.,

"P. BUNAU-VARILLA."

On the same evening I received from M. Jusserand a letter mentioning my title of Minister Plenipotentiary of Panama, and notifying me that he would receive me officially on the following day.

The Republic of Panama was thus recognised by France. Two great Powers were, within thirteen days of its birth, in diplomatic relations with her—the United States in America and France in Europe. Six days later the third one was to be the great Power of Asia—China.

All the others were to follow within a short space of time. Less than two months after the Declaration of Independence it could be said that the Republic of Panama was recognised by all the Powers of the Earth—great and small, with a few insignificant exceptions.

CHAPTER XXXI

SECESSION OF PANAMA WELCOMED BY THE WHOLE WORLD

THE unanimous expression of sympathy given by the Governments of the Earth to the Revolution of Panama was corroborated by the manifestations of public opinion.

PUBLIC EMOTION AFTER THE EVENTS OF NOVEMBER

In France everybody thought that Panama was for ever dead, and that I was exhausting myself in futile efforts to reanimate a corpse. The events of November, therefore, caused the deepest and most agreeable surprise.

Except those who were exasperated by the resurrection of their victim, except those who had done everything to demonstrate that the enterprise was an impossibility and a gigantic fraud, all good citizens were happy to see that they had been wrong in doubting French genius. Organs widely separated by their political points of view united in a touching community of patriotic joy at seeing the noble national conception, which was thought to have disappeared forever, emerge from the abyss. Naturally in this union of hearts those had no part who had systematically discouraged, actively or passively, all efforts of reconstitution.

The latter, as I have more than once shown, suddenly changed their tone, and, exhibiting an intense patriotic sorrow, evoked the fire of the infernal divinities against the "Yankees" who had torn from the French patrimony this precious property.

All good Frenchmen—those who had only to reproach themselves for not having vigorously expressed what was at the bottom of their hearts, and for not having fought error in the open—manifested an intense joy.

The *Temps*, the *Figaro*, the *Petit Parisien*, the *Gaulois*, the *Siècle*—to quote only the principal organs of the various political opinions—wished a cordial welcome to the new Republic and to her Plenipotentiary.

The consensus of opinion thus expressed was appreciated by the Paris correspondent of the *New York Tribune* as follows :

"*Paris, November* 14.

"The announcement of President Roosevelt's reception of Philippe Bunau-Varilla as Minister of the Republic of Panama is accepted here as the final settlement of the international phase of the Panama question. M. Bunau-Varilla, who is widely known and exceedingly popular in Paris, is regarded as the right man in the right place, and his acceptance as a guarantee that in the negotiations concerning the Canal legitimate French interests will be safeguarded.

"According to a trustworthy information received from Berlin, Germany will follow the example of M. Delcassé and accord recognition to the Panama Republic. It has not done so already, as Emperor William is extremely desirous to avoid complications.

"The opinion expressed on all sides is that narrow-minded Colombia has only got what it deserves, and the Panama Canal, being built as an American undertaking, is firmly and emphatically approved by all French papers from the reactionary *Gaulois* to the socialist *Petite République.*

"Indeed, there are only two persons of any prominence who have so far taken up the cudgels in favour of Colombia. . . .

"All these broadsides, however, have no influence whatever on the French public, nor with the French Government, against which they are directed."

Private Congratulations—Eulogistic Articles in the Foreign Press

Those who had personally followed my efforts to save the great French undertaking from annihilation expressed their sentiments in moving letters.

I shall reproduce only three of them to give an idea of the feeling aroused by these events.

The first is from a personal friend, M. Edouard Lebey, former president of the great telegraphic news agency, the "Agence Havas," and a profound observer of the facts and men of his time. The second is from the man who has endured everything and sacrificed everything for the sake of the triumph of his father's grand enterprise, Count Charles de Lesseps. The third comes from one of the great mass of those whom I never knew, but who have been linked with me by the mysterious bond of a common faith in this glorious creation.

"*Paris, November* 1903.

"My dear Friend,

"You cannot believe how proud I am of you. I have known you and admired you for many years. I expected great things from you, and yet I am surprised, amazed, carried away, as everybody is, by what I might almost term the electric events of the last few days. This sudden change of scene, your official and significant entrance on the stage, the cutting of the

Isthmus assured and almost achieved, the Bogota intrigues foiled, the partisans of Nicaragua in flight, my dear friend, it is, indeed, quite a Napoleonic week!

"You are the hero of the day. But such an expression is absurd. It is good for those who do not know. For me you are the hero of many years of will and thought.

"Nothing is more difficult than to keep alive for so long a time a truth which oneself alone perceives, and to find in oneself only the source and direction of energy.

"I imagine that you must have smiled at this public opinion which you have known so indifferent to your appeals of some months ago. Now it applauds you, but, as it must be always in the wrong, it is not your magnificent effort, your long tenacity, your certitude, which it cheers, it is your success and the marvel of your success. For me what is admirable in what you did is that it was rational and almost rigorous. You lead the Evident on to triumph, and the Evident itself gave you the power to make it triumph.

"I believe that history will specially remember having seen in accord, Logic, and Politics, Greatness and Utility, Intelligence and Energy. It is, indeed, a very rare harmony.

"Receive, my dear friend, with my best remembrances, my warmest congratulations and my wishes for the rest of the memorable campaign you undertook alone, and which you will finish with the whole world.

"EDOUARD LEBEY."

"*Paris, November* 12, 1903.

"MY DEAR FRIEND,

"The final act of your marvellous energy appears to everybody as a prodigy and has won for you general admiration. To strike the mass (and it is indeed so) it was necessary to have the fact which consecrates success.

"As for me, I shall not astonish you if I say that I was not as surprised as many, because I have known for many years that there is nothing astounding which you could not accomplish.

"How constantly prodigious has been this campaign of fifteen years, which you have led alone with the disdain of all obstacles and with faith in Truth!

"Mme. Bunau-Varilla has the right for herself and her children to be proud of you. I associate myself in these sentiments with the cordiality you know.

"May I express to you, my dear Apostle, my sentiments of profound friendship?

"CH. DE LESSEPS."

"*Auray,*
"*November*, 1203.

"SIR,

"I would wish that you should stay at this place of honour won for you by your beautiful and ceaseless activity in the immortal enterprise of Panama of which you never despaired.

"You had the honour of sustaining alone, in its most critical moments, this enterprise which had fallen into the weak hands of men devoid of energy, such as now and then we have in France.

"I have shared your faith, and I have heavily invested in this Canal, which will be a source of power to America against Europe and the eternal regret of France who wished for it without sufficient energy to obtain it.

"I present to you my humble tribute of homage, and I am yours, as I already wrote you at the time when you asked for adherents to support you, and were so unjustly forgotten.

"I beg you, sir, to receive this modest compliment from my modest person, and to believe in my admiration and most respectful sentiments.

"DR. ÉONNET, Senior."

In the foreign press likewise much active sympathy, mingled with emotion, was produced by this sudden reversal of fortune.

The *Mouvement géographique* of Brussels, an organ of considerable importance on geographical questions, published in January 1904 an historical summing up of the contest between Panama and Nicaragua. It ended thus :

"The Treaty which some days later MM. Hay and Bunau-Varilla signed, on behalf of their respective Governments, is the last act of the campaign which settles, after such varied vicissitudes, and this time definitely, the destiny of the Panama Canal.

"The victor—we are almost tempted to say the hero—of this extraordinary adventure, is the former chief engineer of the Panama Canal Company. He entered eighteen years ago the service of the great conception of Ferdinand de Lesseps and was for several years its first workman.

"After the failure of the 'grand Français' he had but one ideal, namely, to preserve for France the honour of having boldly attacked difficulties which had kept Humanity at bay for centuries, and the honour of having solved them.

"With an audacity which recalls the temerity and the bravery of the heroic figures of Scandinavian legends, he went out to fight alone, with his own resources, on a foreign soil, with no other weapon than Truth and the scientific solution he defended.

"He met in his path with popular prejudices and national preferences, a hostile press, an adverse technical commission, and a prepossessed Parliament. In spite of all obstacles he continued the struggle.

"He has the right to be proud in presence of victory now assured and the triumph of Truth."

CHAPTER XXXII

RATIFICATION OF THE HAY-BUNAU-VARILLA TREATY BY PANAMA

WE must now return to the 28th of November, 1903, the day of the arrival of General Reyes, delegate of Colombia.

EFFORTS OF GENERAL REYES TO WRECK THE WORK DONE

General Reyes found, as I have stated, the Treaty made, and the new Republic already recognised by the greatest Powers of the Old and the New Worlds.

The Provisional Government had, furthermore, bound itself to ratify the Treaty; but that General Reyes did not know, and, after all, it was but a solemn promise and not an accomplished fact. It still remained to obtain the ratification by the American Senate.

To prevent these ratifications was now the fixed hope of those who hoped to destroy the Treaty.

This was the point of view of General Reyes. He made it clear to the journalists gathered around him when he arrived. His declarations were reproduced in the press, especially by the *New York Herald* of the 29th of November.

When the General was asked: "What can the United States do, now that a Treaty has been signed by Secretary Hay and M. Bunau-Varilla?" he answered: "That Treaty has not been ratified."

The whole policy of the General was traced in advance in these words.

He spontaneously sketched out the method he meant to employ, namely, outbidding. He said to the reporters:

"Of the offers which Colombia is ready to make, I desire to say that my energies and those of my followers are devoted to grant the Canal rights to the United States without the payment of a cent. Even at this Colombia will be the gainer. . . ."

The General added:

"You can further say that all Colombia is afire with zeal for the building of the Canal by the United States, and that the unfortunate political troubles

which were the sole cause of the Treaty's death before the Colombian Congress have entirely disappeared. *We want the Canal, and I have come to Washington to see what the people of the United States are prepared to accept. I come with instructions from the President of Colombia direct.*"

These words, pronounced publicly at Washington on the 28th of November by General Reyes, and reproduced by the *New York Herald*, are in perfect accord with the declarations made by him to M. Beaupré, the American Minister at Bogota, as soon as the news of the Revolution of the 3rd of November reached that city. I have reproduced them above.

General Reyes was accompanied in his mission by General Nel Ospina.

Evidently both were men of too great intelligence not to have been partisans of the ratification of the Hay-Herran Treaty; but they had not had the civic courage to proclaim it loudly. They had joined, most probably against their wishes, in the policy of spoliation which had provoked the contemptuous rejection of the Treaty at Bogota. They had to submit, with Colombia, to its cruel but just consequences.

What offer did they bring to Washington when confronted by the new situation ? The Canal for nothing !

Before it was thus formulated openly the gratuitous offer of the Canal by Colombia became known.

On the 27th of November, that is on the preceding day, the *World* asked a question, which seemed planned to prepare the way for General Reyes. "*Why* $10,000,000 ?" was the title of an editorial, the spirit of which can be easily conceived.

On the 30th November the *Sun* published an answer which crushed for ever the proposition of Reyes. I recognised the high conscience and the stinging pen of Edward P. Mitchell. It was the answer to the question of the *World*. It was entitled :

"*The Ten Millions.*

"Why pay Panama a $10,000,000 bonus for territorial rights and ivileges which we could force the little Republic to grant for nothing ?

"Because we have already made, in a treaty, duly ratified on our part, ıe offer of $10,000,000 bonus to Colombia for rights and privileges very uch inferior to those we are to secure from Panama by the Hay-Bunau-arilla agreement.

"But why persist in this act of justice to Panama, now that *General afael Reyes* comes to us professing that the Bogota Government, in view events beyond its control, is willing to concede gratis the territorial rights r which it so recently refused $10,000,000 and attempted to extort 25,000,000 ?

"Because, even if this concession by Colombia were assured, and even the territorial rights thus to be obtained were equivalent to those which anama grants, the overthrow of the young Republic by the same hand

that welcomed it to existence, for a bribe of ten millions, or any number of millions, would be a national infamy of a magnitude incalculable.

"That is the whole of the $10,000,000 question."

This editorial buried the offer of General Reyes immediately after he had given it publicity. There was no longer any question about it.

The guns of the first battery of General Reyes, tempting the United States with money, were thus spiked.

The second project consisted in the threat to invade the Isthmus by passing overland and thus to make war on the United States.

I had several times publicly declared that such an enterprise was impossible, and it was rigorously true.

I had said that it was just as easy to march an army on foot from the Cape of Good Hope to London as from Bogota to Panama. Though there are no straits to cross, the obstacles are quite as great.

Never since the discovery of America, has an army ever passed over the space between the Isthmus (properly speaking) of Panama and the continental mass of South America.

The virgin forests of the Isthmus of Darien extend from the Atrato Valley, which forms the limit of the continent, to the line, Colon-Panama. They are inhabited by savage and independent Indians.

The Isthmus has been occasionally crossed from sea to sea. Never have communications been established parallel to the shores along this space of about two hundred miles. It is protected by its marshes, its inextricable forests, its deadly fevers, and its indomitable inhabitants.

General Reyes emphatically denied what I said. He affirmed the non-existence of this geographical fact, perfectly established for all people familiar with this country.

Besides the declaration which I have already quoted, the *New York Herald* registered an explicit menace of war from the mouth of General Reyes.

"So tense is the feeling and so national the spirit of determination to bring the Isthmus back into the Republic, that President Marroquin will have no trouble in raising an army twice the size necessary to put down the disturbance. Such an army can march overland to the Isthmus, *the opinion of ill-advised persons to the contrary notwithstanding.*"

The situation was thus, at the end of November, perfectly clear. On the one side I had created a very strong position. On the other side the hostile forces had banded together in order to capture it. It was over the question of ratification by the Government of Panama and by the American Senate successively that the critical battles were to be fought. Would the position I had established at the end of November be impregnable or not? That was the question.

Obstructions to Ratification by Panama

The first battle to be fought was that of ratification by Panama.

To be sure I had the promise of the Government to ratify the Hay-Bunau-Varilla Treaty.

I had the most absolute faith in their determination.

But the Government might disappear under the pressure of public opinion, which is so changeable in South American republics.

Cunning and perfidious orators might excite the sentiments of the people by persuading them that a foreigner had inflicted an insult on the national honour in sacrificing the sovereignty of the Republic. They could affirm that a citizen from Panama would have drawn up a much better treaty for the country, and thus provoke rejection of the Treaty.

It was, therefore, necessary at all costs to prevent the Treaty I had signed from being discussed by ignorance and blindness in the market-place. It was necessary that the Panama Government should not be compelled to abandon its position, or to withdraw in spite of its good intentions. To secure the desired result there was but one method for the Government, the method which is always the same; namely, prompt and decisive action.

The Treaty was to arrive at Colon on Tuesday morning, December 1. On the same day at twelve o'clock the mail steamer for New York was to leave that port. The next steamer left a week later.

The Treaty, therefore, had to remain seven days on the Isthmus.

Given this unavoidable delay, would the Provisional Government be able rigorously to keep its word? Would it not be constrained, in order to cover its responsibility, to consult the principal citizens, since it had all the time necessary to do so?

To obviate this danger, an idea occurred to me. Could I not ask for the postponement until the following day of the sailing time of the mail steamer for New York, so that it could bring the Treaty back?

The urgency of the ratification would then be spontaneously understood by everybody if the boat was kept waiting.

On the contrary, if the Treaty was to remain a whole week on the Isthmus, immediate ratification without obvious reasons might provoke criticisms, and the fear of these criticisms paralyse the necessary action of the Government.

The question of delaying the departure of the mail steamer seemed to be a very easy matter to deal with.

The line of steamers between Colon and New York belonged to the Panama Railroad, nearly all the shares of which Company belonged to the Canal Company.

Ratification of the Treaty was the supreme desire and the last hope

of this Company. For the agents of the Panama Railroad, therefore, it was an essential duty to do everything in their power to facilitate it.

This seemed all the easier, as the leading spirit of the Panama Railroad was the Canal Company's own representative, Mr. William Nelson Cromwell.

The President of the Railroad was a banker of the name of J. Edward Simmons, an intimate friend of Cromwell. It was he, it may be remembered, who had implored Senator Hanna to enlist my influence, to induce the Canal Company to take back into their service the lawyer Cromwell. The Vice-President was a certain Mr. Drake. He was considered to be an agent absolutely devoted to Cromwell.

I had, therefore, every reason to believe that in these circumstances I had only to express my desire to the Panama Railroad Company immediately to have it satisfied. Up to that day I had had no complaint to make against Cromwell. He had come two or three days after his return from France, which had taken place on November 17, to pay me his compliments, and to offer me his congratulations on the signature of the Treaty of November 18. I, of course, did not tell him that I knew what his part had been during the first period of events—encouragements first and sudden defection afterwards. I had always considered him as an active and useful messenger between important men.

On the 28th of November at 2.45 P.M. I therefore wired to the President of the Panama Railroad the following message :

" On account of the extreme importance of getting back soon, duly ratified, the Canal Treaty, my Government and myself would appreciate it as a service rendered to the country if you would cable orders to detain the ship scheduled to leave Colon next Tuesday as much time as will be necessary to the Government to examine, discuss, and ratify the Treaty which was forwarded by *City of Washington.*

" BUNAU-VARILLA,
" *Minister Plenipotentiary of the Republic of Panama.*"

I left in the evening for New York, so as to be able to act if it became necessary.

I received no answer either on the same day or on the following day, or on the morning of the day after.

In the afternoon I called up in vain the Panama Railroad by telephone. Finally, suspecting something abnormal, I went at about four o'clock to the offices of the Company.

Vice-President Drake received me. To my great surprise I learned that nothing had been done. I expressed my surprise to Mr. Drake with some vivacity. He gave certain reasons which seemed futile.

Finally he promised me to go and see Mr. Cromwell and Mr. Simmons immediately, both of whom were unwell and were conducting their business while staying at home. He agreed to telegraph to me before six o'clock on the same day.

This promise was not kept. On the day following, after the hour fixed for the departure from Colon of the *Yucatan,* the steamer in question, the answer of the President of the Panama Railroad arrived at the Waldorf. It had taken three days to give a negative reply to the most legitimate and most simple of requests.

I had had no need to wait for this result to understand that my request had encountered some very grave obstacle, which did not make for speedy ratification.

The very courteous, but at the same time evasive, attitude of Drake demonstrated this to me at the outset.

I desired, therefore, that an official trace should remain of the incredible attitude of the agents of the Panama Railroad in this circumstance. Two days later, on December 3, I made it the object of an official letter to the Department of State.

Ratification by Panama of the Hay-Bunau-Varilla Treaty

My efforts to detain the *Yucatan* had been frustrated, and the Treaty was destined, therefore to, remain seven days on the Isthmus.

I resolved to get it out of the hands of the Panama Government without waiting for the departure of the next mail steamer. To that end I requested the Government to deliver the Treaty to the American Consul at Panama as soon as the immediate ratification had been made as promised.

The following is the substance of my cable message to the Minister of Exterior Relations :

"So long as the ratified Treaty will remain in possession of the Provisional Government, it will not be considered at Washington as being guaranteed against a possible reconsideration. It is, therefore, necessary it should be forwarded as soon as ratified. The best way is to use the American State Department Bag and to entrust the Treaty as soon as ratified to the American Consul. The attitude of the Panama Railroad, moreover, demonstrates that this company offers no longer the necessary moral guarantees for the transportation of the Treaty."

The Provisional Government carried out this programme loyally and courageously.

On Wednesday, December 2, I received the two following cablegrams. The first one was from the Minister of Exterior Relations.

"At this moment, at eleven-thirty, the Junta of Provisional Government has just approved and signed the Treaty.—Espriella."

The second one was from the Provisional Government itself. It was signed by the three members of the Junta and was forwarded at 6 P.M.

"BUNAU-VARILLA,
"*Minister Plenipotentiary of Panama,*
"*Washington.*

"It is most agreeable to inform Your Excellency that unanimously and without modifications, we have ratified the Canal Treaty. This action of the Government has attracted unanimous approval.

"J. A. ARANGO,
"TOMAS ARIAS,
"M. ESPINOZA."

As always happens, the precise, energetic, and prompt action of the Government had crystallised popular sentiment around it.

THE CABLEGRAM UNQUALIFIABLE

Sometimes a sudden ray of unexpected light, resulting from the revelation of formerly unknown documents, is thrown on past events which the historian has undertaken to narrate.

I am going to reproduce a document which was brought before a Committee of Congress at Washington on February 16, 1912, in the course of an inquiry on the Rainey resolution, and which was printed in a document of the said committee entitled: *The Story of Panama.*

It is a cablegram dated New York, November 30, 6.10 P.M., 1903. This was precisely the time when I was waiting in vain for the note that Mr. Drake, Vice-President of the Panama Railroad, had promised to send me after his interviews with Mr. Simmons, President of the said Railroad, and Mr. Cromwell, its general counsel. This interview, it will be remembered, was to settle the time at which the *Yucatan* was to leave Colon, in order to facilitate the ratification of the Treaty by Panama, and its prompt return.

As I have said, I was warranted in expecting a favourable decision.

First, because I was merely making a quite normal and ordinary request of a kind often granted owing to the necessity of corresponding with the arrivals of ships on the Pacific side.

Secondly, because the duty of the agents of the Panama Railroad in their capacity as American citizens and as employees of the French company, was to further the ratification of a treaty which, from this double point of view, was eminently desirable.

Thirdly, because I had assumed all responsibility, in the name of

the Republic of Panama, as regards any material risks which this short detention might entail.

Fourthly, because I thought I could count on Mr. Cromwell's active co-operation, not only because of the two urgent considerations mentioned, but also because he owed me a debt of gratitude. It was, indeed, owing to me that he had been taken back into the service of the new Company, a thing which he intensely desired, and for which he had solicited my intervention through the intermediary of Senator Hanna's friend, Mr. Simmons.

I refrain from qualifying this cablegram. It speaks for itself.

When it was first brought, on February 16, 1912, before a Committee of Congress, and printed in a public document, I hoped that those whose names are mentioned in it would promptly protest before this Committee and make a decisive answer.

Some time later, on March 29, 1912, I wrote to the Speaker of the House of Representatives at Washington, transmitting a document signed by myself and entitled: *Statement on Behalf of Historical Truth.*[1]

Its purpose was to destroy certain fictions figuring in the evidence given before the Committee and printed in the said Congressional document, *The Story of Panama.*

The cablegram in question was produced in my statement with accompanying commentaries.

This *Statement* made some sensation in the Press. The *New York Times* and the *Philadelphia Ledger* notably filled a whole page of their issue of April 14, 1912, under a headline covering the entire width of the page:

"BUNAU-VARILLA ASSAILS CROMWELL IN PANAMA DISPUTE"

It is materially impossible, therefore, to suppose that the text of the cablegram did not reach the persons mentioned in it.

Congress, however, had closed its session about six months after this cablegram was printed in its documents, and about one-third of a year after the articles of the *Times* and of the *Ledger* had again called public attention to it.

During all this time the persons concerned have not protested against the authenticity of this cablegram. They have not asserted that it was a forgery, and that he who first presented it was a false witness.

The self-interest which ought to have led them to make such a

[1] The Committee on Foreign Affairs of the House ordered the *Statement on Behalf of Historical Truth*, on the 19th of February, 1913, to be printed in the Hearings on the Rainey resolution, entitled *The Story of Panama.* This *Statement* not only contains in a more developed form the facts to which reference is made here, but various others, among which are those on p. 424.

protest, was indeed very great, and it is to be hoped that a complete demonstration of the falsity of the telegram will yet be made.

This cablegram, if it is not demonstrated to be a forgery, constitutes not only a breach of the laws of honour, but also a breach of the criminal law of the United States.

The laws of the United States punish any American citizen who interferes in diplomatic negotiations and tries to frustrate the measures of the Government of the United States.

In this cablegram, as will be seen, the Panama Government was informed that the Treaty which was about to be presented to it for ratification might have been made much more advantageous for Panama. It is a direct and explicit incitement to refuse the ratification, which was the aim of American diplomacy.

I give this cablegram as printed in the document of the Committee on Foreign Affairs of the House [1]: *The Story of Panama.*

"*New York,*
"*November* 30, 6.10 P.M.

"BEERS,[2] "*Panama.*

"*Several cables urging immediate appointment of Pablo Arosemena*[3] *have been sent to the Junta*" (Government of Panama) "*since Friday. We are surprised that action has not been taken and suppose it is only because Minister of the Republic of Panama is trying to disturb the Junta by cabling that Washington will make a trade with Reyes and withdraw warships and urge his retention because of his alleged influence with President Roosevelt and Senators. This is absolutely without foundation.*

"*Mr. CROMWELL has direct assurances from President Roosevelt, Secretary Hay, Senator Hanna, and other Senators that there is not the slightest danger of this.*

"*Evidently the Minister's pretence of influence is grossly exaggerated.*

"*We have the fullest support of Mr. CROMWELL and his friends who have carried away victory for us for past six years.*

"*Junta evidently does not know that objection exists in Washington to the Minister of Panama, because he is not a Panaman, but a foreigner; and initially has displeased influential Senators regarding character of former Treaty.*

"*He is recklessly involving Republic of Panama in financial and other complications that will use up important part of indemnity. Delegates here are powerless to prevent all this, as Minister of Republic of Panama uses his position of Minister to go over their heads.*

"*He is sacrificing the Republic's interests and may at any moment commit Republic of Panama to portion of the debts of Colombia, same as* HE SIGNED

[1] This cablegram was reproduced under oath during the judicial inquiry made on the Isthmus in connection with the prosecution of the *World* by the Government of the United States, and its text was brought to the Committee on Foreign Affairs by a member of the staff of the *World*.

[2] Beers is the man who had been sent to New York by the originators of the revolution and who had consulted with Drake and Cromwell.

[3] To the office of Minister Plenipotentiary of Panama to Washington, then filled by myself.

A TREATY OMITTING MANY POINTS OF ADVANTAGE TO REPUBLIC OF PANAMA AND WHICH WOULD HAVE BEEN GRANTED READILY—*without waiting for delegates who were to his knowledge within two hours of arrival.*

"*WITH DISCRETION INFORM JUNTA and cable me immediately synopsis situation and when Junta will appoint Pablo Arosemena. Answer to-day if possible.*

"DRAKE."[1]

Let us consider the ideas contained in this cablegram.

They express under a condensed form the ideas underlying the campaign directed apparently against me, but in reality against the Treaty guaranteeing the Independence of Panama.

The provisional Government of Panama, the Junta, paralysed the effects of this campaign by treating the cablegram with contempt, and courageously followed the line I had traced out for it.

If the destinies of Panama had been entrusted to a weak-minded man instead of to an energetic and patriotic personality, such as that of J. A. Arango and his two associates in the Junta, the abominable campaign would have succeeded.

Indescribable disorder would have ensued.

In the midst of the complications which opposing passions would have generated, who can say if Panama would not have been definitely wrecked at the very entrance of the harbour of refuge ?

The DISADVANTAGEOUS TREATY MADE BY A FOREIGNER would have been lacerated by the indignation of certain so-called patriots at Panama who were in fact simply local agents of Colombia.

The attacked Minister would have been replaced by a Panaman, Señor Pablo Arosemena, no doubt a very distinguished man, but by one unfamiliar with the Canal policy at Washington.

In the midst of the outburst of passion fanned by the intrigues of Colombia, and given the proximity of the presidential elections, what might have happened ? The melancholy history of the successive

[1] This cablegram falls directly under the sanction of the American criminal law, first, because its intent was to influence the Panama Government in connection with the dispute of the United States with Colombia as to the Panama Canal; and secondly, because its object was to defeat the measure taken by the U.S. Government in signing the Hay-Bunau-Varilla Treaty.

In the revised Statutes of the United States may be found the Act of January 30, 1799, under the title, *Criminal Correspondence with Foreign Governments*, of which an extract follows:

"*Every citizen of the United States . . . . who, without the permission or authority of the Government, directly or indirectly, commences or carries on any verbal or written correspondence or intercourse with any Foreign Government . . . . with an* INTENT TO INFLUENCE THE MEASURES OR CONDUCT OF ANY FOREIGN GOVERNMENT *. . . . in relation to any disputes or controversies with the United States, or to defeat* THE MEASURES OF THE GOVERNMENT OF THE UNITED STATES, *and every person being a citizen of . . . . the United States and not duly authorised* WHO COUNSELS, ADVISES, OR ASSISTS, IN ANY SUCH CORRESPONDENCE, WITH ANY SUCH INTENT, *shall be punished by a fine of not more than five thousand dollars and by imprisonment during a term not less than three months, nor more than three years. . . .*

failures of the attempts to save Panama would have had another and final chapter.

Fortunately the measures I had taken paralysed the efforts of those working in ambuscade and baffled their manœuvres.

The meshes were cut in good time, and did not arrest the march of events. The first conspiracy directed against the ratification of the Treaty came to naught. The others were to have the same fate.

On December 2, 1903, less than a month after the revolution, the Treaty for the construction of the Panama Canal had been ratified and had become for Panama an accomplished fact.

CHAPTER XXXIII

RATIFICATION OF THE HAY-BUNAU-VARILLA TREATY BY THE AMERICAN SENATE

THE enemies of the Treaty were henceforth to concentrate all their efforts on the attempt to prevent its ratification by the American Senate.

On this battle-field I had to meet the irreconcilable enemy, whom I was to worst after several desperate engagements.

INTERESTS LEAGUED AGAINST THE RATIFICATION IN WASHINGTON

It was on the 7th December that the session of Congress opened at Washington. A series of desperate attacks against the ratification immediately began.

The main interests leagued against ratification were the following :

First, the interests of Colombia, represented by the mission of General Reyes;

Second, the interests of the opposition, which calculated that by rejecting the Treaty they would place President Roosevelt and the Republican Party in an embarrassing situation with reference to the presidential elections of 1904. The opposition had in the Senate more than one-third of the votes. If the phalanx remained solid, the two-thirds majority necessary for ratifying a treaty could not be attained, and the Treaty would be rejected.

Third, the interests of the Nicaragua party, which included all the votes of the opposition and a certain number of Republican votes.

In addition to these three main groups there were a certain number of secondary but active elements actuated by personal motives more or less avowable.

An opposition, even though all-powerful, cannot act without plausible pretexts.

The policy adopted by the united foes of the Treaty was as follows :

First, try to prove the inadequacy of the stipulations of the Treaty from the point of view of American interests;

Second, try to prove the collusion between the American administration and the insurgents, and the preparation of the insurrection at Washington, thanks to the subsidies and pledges of the Government of President Roosevelt;

Third, try to prove the violation of the Treaty of 1846, by which the United States guaranteed to Colombia sovereignty on the Isthmus.

Fourth, try to prove the existence of a scheme floated by a syndicate of low speculators, aiming at a Wall Street *coup* as regards Panaman securities, and headed by the signatory of the Treaty on behalf of Panama.

Of these four schemes one only might have proved dangerous—the first—had I not taken the necessary precautions.

Happily I had clearly foreseen the obstacles that the future had in store, and I had drawn up a treaty which contained absolutely no point on which a decent objection could be made.

When in the ardent speeches in the Senate the Treaty was criticised for its perfection, I seemed to be beholding an enraged bull-dog trying to drive his teeth into a solid and polished sphere larger than his head.

As regards the three other charges, they were too obviously mere figments of the imagination. Such elements do not long hold together when they cannot be cemented with facts. Structures of this kind sooner or later collapse on the heads of their occupants.

Neither Collusion with the Insurgents nor Violation of the Treaty

The collusion of the Washington Government with the insurgents could not be demonstrated, for the very simple but very powerful reason, that such collusion had never existed either directly or indirectly.

Not only it had not existed, but the American Government itself had contemptuously rejected every attempt to establish it. The sudden abandonment of Amador to his fate was the manifest proof of the fact.

As for the violation of the Treaty of 1846, the charge was pure sophistry, based on an arid interpretation of the letter of the Treaty. But sophistries have a long life, and from time to time the phantom is brought out into the light.[1]

When she concluded a treaty with New Granada in 1846 the United

[1] General Reyes, in an interview given to the *Imparcial* of Madrid, and published October 9, 1912, has exposed once more this error, thanks to which the advocates of Colombia try piously to conceal the grave faults of the mother-country.

States, in consequence of the police duty that she undertook to fulfil between Colon and Panama, guaranteed to the Granadan Confederation the sovereignty on the Isthmus of Panama.

This guarantee was, and was bound to be, against any outside enterprise.

The United States never dreamed, any more than did New Granada, that she would be called upon to intervene in the internal political disputes of New Granada; that she would have to take up arms for one party against another; and have to further the domination of the party in possession of Bogota against the party holding Panama.

A guarantee of sovereignty applies to a fact and not to a word.

In 1903 the Colombian party that was master in Bogota exercised merely nominal sovereignty in Panama, owing to the fact that it had kept the name "Colombia."

The Colombian party that was master in Panama was sovereign not because of the name, "Colombia," which it had dropped, but owing to the material fact that the inhabitants of the entire Isthmus recognised its sovereignty and supported it with enthusiasm. Between the nominal sovereign and the *de facto* sovereign the United States could not hesitate.

The more closely it is examined the more evident becomes the absurdity of the Colombian sophism.

If the Treaty of 1846 had been signed some twenty years before it would have been made with "Great Colombia," which then embraced the present Colombia, Venezuela and Equador, and Panama.

What sane mind could pretend that after Great Colombia was cut up into three parts the Treaty would not have followed that particular section which embraced the territory of the Isthmus?

What sane mind could argue that the American army and navy should have been employed to maintain the solidity and the integral unity of the three fragments desiring to separate, and to re-establish by force Great Colombia, so that its sovereignty guaranteed on the Isthmus, should remain unimpaired?

If the theory defended by Bogota after the secession of Panama had been valid, this is the strange consequence to which it would have led in such a case. The guarantee of sovereignty on the Isthmus, if given to Great Colombia, would have rendered obligatory the maintenance of this political entity against the will and the desire of the majority of its citizens, so that none of its three elements should lose their part of sovereignty on the Isthmus.

This would have been absurd.

The principle which was followed by President Roosevelt, and which, indeed, was bound to be followed, is quite different.

When the United States guaranteed to New Granada sovereignty

over the Isthmus, she pledged herself to prevent the Isthmus from being seized by a Foreign Power. She guaranteed this sovereignty against foreign conquest to the native political entity exercising it, whatever it might be, whatever its name, and whatever the extension of its dominions outside of the Isthmus proper.

When the Treaty of 1846 was signed this native political entity was called "New Granada." Some years before its name was "Great Colombia," and its territorial limits were much greater. Some years later its name was "Colombia," and its territorial limits were the same as those of "New Granada." Some years later still its name was "Panama," and its territorial limits were more restricted. In all of these cases the guarantee of sovereignty had to follow, and indeed did follow, the native sovereignty, in order to protect it against foreign conquest.

That is the obvious truth. All other considerations are pure sophistry.

It is true that the United States, in rapidly recognising the new Republic, displayed little friendship for Colombia, but she did not thereby violate any Treaty.

If it was a dishonourable act, as the Colombian sophists claim, to welcome the new Republic with open arms and to show little friendliness for Colombia, it should be remembered that the same act was committed by all the nations of the world, great and small, and that one and all acted dishonourably.

But all nations observed the same attitude of restricted friendliness to Colombia, because this Republic had adopted towards the whole world an unfriendly attitude by abusively trying to enforce her sovereignty with the object of paralysing a work necessary for all. She had, furthermore, acted contrary to all sense of justice and equity in deciding to sacrifice a part of her people to a sordid policy.

She has been condemned by the highest tribunal of the world, that formed by the Governments of all the Nations of the globe.

All the Efforts of Calumny doomed in Advance to Failure

As to the fourth platform of attack, the attempt to show that the origin of the revolution of Panama was a sordid speculation, that did not disturb me in the least.

It is a characteristic of Calumny to be quickly consumed and devoured by its own fire.

Ever since the downfall of the old company, that is to say, ever since 1889, I had devoted my time, and opened wide my purse, for the vindication and triumph of the great French idea.

I was completely indifferent, therefore, to the futile assaults of mendacity.

They could discover in my acts nothing but unremitting sacrifices for this great work, in the triumph of which I saw the triumph of French genius. They could not find, for it had never existed, the slightest trace of a desire for personal profit, even of a moral order.

How could such a weed flourish in the garden of a great and constant devotion to the superior interests of one's native land ?

From the moment, therefore, of the opening of Congress all I had to do was to make up my mind to patience. I had only to wait until the people of the United States, finally tired of the sonorous epithets, and of the absence of reprehensible facts, should impose silence on the malicious babblers.

This indeed, is what actually happened.

Popular Action stops the War against the Hay-Bunau-Varilla Treaty

After a month of epileptic declamations in the Senate, certain legislatures of the Southern States, among others those of Louisiana and of Mississippi, passed resolutions enjoining upon their unwilling representatives ratification of the Treaty.

This was the death-knell of obstruction.

The defeat had thus begun in the early days of January 1904. It was to be completed on the 23rd of February following by the ratification of the Treaty.

On that day innumerable insults had been proffered in the Senate against the Treaty and its framers : none that did not correspond to wicked fictions born in the sickly imaginations of people exasperated by the ineluctable defeat of their hopes !

Mr. Roosevelt proves he did not expect Secession

In order to try to stop the already rising flood of baseless accusations, Mr. Roosevelt declared to a reporter of the *New York Herald* on the 10th of November, 1903, that a short time before the revolution of the 3rd November he did not expect an explosion of this character. He gave as proof of this fact that the message which he was preparing in the course of October contained a request to Congress to decide once more and definitely between Nicaragua and Panama.

He explained how he had asked for the opinion of Professor Bassett Moore as to the possibility of constraining Colombia to accept the construction of the Canal on the strength of the Treaty of 1846. The

Professor had declared, said Mr. Roosevelt, that the United States had the unquestionable right to exercise such pressure.

The *Herald* concluded :

"Accordingly the President was willing to leave the whole question to Congress to decide. Nothing could be hoped for from Colombia, and it was either a question of opening negotiations with Nicaragua or beginning the Canal at Panama without the consent of Colombia and under our rights of the Treaty with New Granada."

Thus was made public on the 11th of November, 1903, the essential fact which I had discovered at the end of the preceding September, a few days after my arrival in New York.

It may be remembered by what inductions I extracted it from the facts observed, and what a powerful guide it became to me in the preparation of after events.

It was not to be expected that this spontaneous and loyal declaration of the President would allay the fury of the adversaries of the Treaty.

The Perfection of the Hay-Bunau-Varilla Treaty exasperates Senator Morgan

Already on November 23 Senator Morgan, the inveterate champion of Nicaragua, had begun his campaign of bitter denunciations of those who had made the revolution of Panama. It was during an extraordinary session of the Senate which had been convoked for another object and in which the Panama question should not have been treated at all. This was the beginning of the campaign Senator Morgan was to lead to the bitter end—bitter indeed for him, as the *Sun* pointed out.

He acknowledged his defeat as regards the Treaty. With impotent and comical passion he admitted that this detestable document contained everything which could be desired. On the other hand he began his insinuations as to President Roosevelt being the author of the revolution. He also paved the way for representing me, as was done later on, as a man of straw, simultaneously paid by President Roosevelt and the Panama Company, and engaged to sell for forty million dollars a thing which was not worth one cent.

The upshot of all his speeches was that I was a man loaded with crimes—a shameless adventurer, guilty, and capable of every infamy; yet the object of scandalous demonstrations of friendship and regard on the part of the President of the United States.

This was the theme that inspired innumerable bursts of oratory which, during three months, continuously resounded in the precincts of the highest legislative body in the world. They cover

three hundred pages of the Congressional Record; and half a million words, among which were a certain number of ugly ones, were employed in the bombardment.

I felt some pity for this epileptic eloquence when I thought how hard it was for its main inspirer, the poor old man, to be driven to recognise at the end of his life that he had devoted his days entirely to an error. And he had to suffer this ordeal at the hands of a foreigner!

That was, indeed, a tragic turn of Destiny! The man whose efforts he had derided in 1901, whom he had insulted in his own house, had become the Minister Plenipotentiary of this new State, the birth of which meant the very death of the hopes of his entire existence.

This partially excused certain of Senator Morgan's frenzied attacks.

The Quill Club and the Academy of Moral and Political Sciences

Towards the middle of December a club whose members were among the most distinguished literary men in New York, the Quill Club, invited Mr. Loomis and myself to speak before them.

The Academy of Moral and Political Sciences of Philadelphia extended a similar invitation to me.

Mr. Loomis's speech produced a deep impression. He showed how the revolution of Panama had rendered unnecessary what would otherwise have been the unavoidable action of France, owing to the plundering policy of Bogota. France would have been obliged to violate the Monroe Doctrine, and to tear up the pact of traditional amity between herself and the United States.

I demonstrated at both meetings the criminal character of the Colombian policy, and the perfect legitimacy of the American action towards the Republic of Panama.

Mr. L. S. Rowe, President of the Academy of Moral and Political Sciences, wrote me the following letter after the lecture on the 17th December, 1903:

"Permit me to present to you the formal thanks of the American Academy of Political and Social Science for the admirable address delivered at the session of last Friday evening. I feel that you have done the American people a great service in bringing the actual situation clearly before their attention. You have made a host of friends in Philadelphia, and I hope that at some future time we may again have the pleasure of welcoming you.

"I beg to remain,

"Very sincerely yours,

"L. S. Rowe,

"*President.*"

My speech was reproduced by several papers.

I had given in it the extract of the various warnings I had sent to Colombia, and among others the article of the *Matin* of September 2, 1902. It may be remembered that the article of the *Matin* of that date outlined with precision, in advance, all the events which successively took place and also the intentions, then unknown, of President Roosevelt as to the use of the Treaty of 1846.

As a matter of course, the aged Senator Morgan laid hold of this article, and before the Senate on the 4th of January following, on the first meeting after the holidays, brandished what was for him authentic proof of an understanding between Mr. Roosevelt and myself :

"How did that inflated Frenchman—who seems unable to keep his tongue any more than a chanticleer is able to keep his voice down when he is on the top rail of a fence and day is dawning—ever become possessed, as he says he was before informed, of this line of policy which the President has worked out in both his messages, his annual message and the one that came here to-day (January 4, 1904), with as absolute precision as is possible for a man to do ?

"If the President did understand the situation at that time and did not state it to him, M. Bunau-Varilla is a great mind-reader.

"He found it somewhere either in the mind of the President or in the mind of the Secretary of State.

"*Here is the plan worked out exactly which he projected and prognosticated in September* 1903."

By a singular coincidence the message of January 4, 1904, which had provoked this outbreak, contained the expression, "collective civilisation," very similar to a phrase I had used in the *Matin* article.

The article of September 2, 1903, ended with these words :

"The rights of property of the individuals, like those of nations, have a limit which is the superior right of circulation of the *human collectivity*."

On the 9th January, Senator Bard called the attention of the Senate to this coincidence.

It should be remarked that not one of the half-million words which were pronounced in the public sessions of the Senate on the ratification, ought to have been expressed.

Every one of them referred to the ratification of an international treaty, and such debates are reserved for the executive sessions behind closed doors.

The result was, that every man who had any respect for his senatorial obligations abstained from raising his voice in the open sessions.

The others alone had the privilege of the floor and of publicity.

The consequence was that for three months I had continually to put up with insults, without hearing a single word redressing them —the latter being uttered solely in executive secret sessions.

The Charming Attentions of President Roosevelt

Very likely to counteract the effects of this savage treatment of a foreigner, who was the guest of the American nation, President Roosevelt surrounded me with courteous attentions.

Before the State dinner given to the Diplomatic Corps on January 14, 1904, he came up to me and said :

" M. Bunau-Varilla, I have never been as astonished as I was when I read the article of September 2, where you described exactly what I was then preparing with Professor Bassett Moore at Oyster Bay."

" But, Mr. President," I answered, " it is purely a matter of logic. The same facts are bound to lead logical minds to the same conclusion, however far away from each other they may be."

" Well," said the President, " if that is so, you are the greatest logician I have ever known."

As the butler announced that dinner was served, the President left me, saying with his usual spontaneous generosity: " They say that I have inspired you. It would be much more true to say that you inspired me."

By these words the President alluded, I suppose, to his recent message of the 4th January, 1904, in which he said that three ways were opened for the application of the Spooner Law : either a convention with Colombia, or the enforced execution of the Canal on the strength of the Treaty of 1846, or the transfer of sovereignty in consequence of a revolution.

It was precisely the very mode of exposition I had adopted in the article of September 2, 1903.

The Hay-Reyes Controversy : Secretary Hay accepts my Final Formula

During the entire month of December, General Reyes, special Ambassador of Colombia, had been engaged in a verbal and epistolary discussion with Mr. Hay, the Secretary of State.

He was helped by a subtle lawyer, Mr. Wayne MacVeagh, former Secretary of Justice in the Cleveland Administration, and had sought for all his arguments in the press opposed to the President.

These arguments could only hold water thanks to assertions devoid of proofs and without any basis in fact.

General Reyes condensed them in a note of his grievances presented on the 23rd December, 1903. Mr. Hay answered easily and victoriously on the 5th January, 1904. He demonstrated that Colombia's grievances were imaginary, and that she had to scrutinise her own action to find the origin of the events of which she complained.

General Reyes having no fact on which to support his claims, had been obliged to resort to deplorable inventions.

What must be thought of General Reyes? What must he think to-day of himself?

He committed the unpardonable fault of introducing into a letter, signed by his hand, an odious and calumnious assertion. He stated, as if it were a certainty, that the *revolution of Panama was the work of speculators.*

"He who uses the sword shall perish by the sword!"

General Reyes has also been the victim of calumny. It is difficult for him to complain, for he himself used this infamous weapon.[1]

To be sure, General Reyes, in this Panama question, was inspired solely by the sincere and filial desire of concealing the faults of his mother-country and of defending her interests. But there are certain weapons which a man of high character should reject with disdain.

From such arguments nothing could, and nothing did, result. Solely the menace he had formulated on his arrival at Washington, and which he was still maintaining, disquieted many minds. It was the invasion of the Isthmus by military forces coming overland from Colombia.

Mr. Root, Secretary of War, was much preoccupied by the situation.

I went to see him on January 8, and during more than an hour I demonstrated to him the material and physical impossibility of such a scheme.

I do not know if I convinced him, but I certainly inspired him with grave reasons for doubting the seriousness of General Reyes' threat.

The warlike attitude of General Reyes had undoubtedly made a deep impression on many people.

On January 12, 1904, Mr. Hay requested me to come and see him.

[1] On August 18, 1906, the *New York Herald* of Paris published this information:

"The accusation of treason preferred against General Reyes, President of Colombia, by the former Minister, Mendoza, is officially contradicted here."

"I am going to ask for your advice," he said. "Influential persons think that a war with Colombia is near at hand, that she is sending troops by land. General Reyes informs us that this war can be avoided if we pay an indemnity to Colombia. If the war bursts out the expenses will be much greater than the indemnity asked for. Influential persons propose that Panama should pay this indemnity to Colombia, it being understood that the American Treasury will finally foot the bill. What do you think of this proposition?"

"Allow me, Mr. Secretary, to express myself as freely as if you were not present."

"That is what I desire," answered the Secretary of State, smiling.

"Well," I continued, "here are the principles which govern my answer:

"First, invasion of the Isthmus by land forces coming on foot from Colombia is a mere bugaboo. It can only frighten birds, or men with birds' brains. It is impracticable, it will never take place.

"Second, such an invasion, were it possible, would be infinitely preferable to the commission of a dishonourable action.

"Third, it is a dishonourable action to purchase tranquillity by submitting to blackmail; and a man submits to blackmail when, under threat, he pays something he does not owe.

"Fourth, an act, if dishonourable, does not cease to be so—on the contrary—when an intermediary is employed to commit it.

"Here, then, Mr. Secretary, is my answer based on the foregoing principles: If the Government of the United States decided to admit of a solution which I consider to be incompatible with honour, and if it asked me to co-operate, I would refuse. Therefore, if the plan you have outlined were to be substantiated, I would have to resign beforehand."

Mr. Hay replied: "It is exactly the answer which I expected from you. But now let us see how we can conclude with General Reyes. It is necessary that I should make on behalf of Panama some reasonable proposition in agreement with you."

"Allow me, Mr. Secretary," I answered, "to go out, and think the matter over while smoking a cigar. I will bring you the answer in a very short time. I have it already in mind, I feel it to be very simple and brief, but I desire to meditate over it for a few moments."

An hour later I returned with the desired proposition.

Mr. Hay adopted my formula textually, save the insignificant alteration I shall mention, and it became the conclusion of his

letter dated the following day, January 13, by which General Reyes' mission was brought to an end. Here it is :

"This Government is now, as it always has been, and, as I have frequently had the honour to inform your Excellency, most desirous to lend its good offices for the establishment of friendly relations between the Republic of Colombia and that of Panama. We think that they might be exercised with a hope of favourable results if Colombia, as may be inferred from our interchange of views, should consider that the conditions necessary to its recognition of the existing state of things are :

"First : To submit to a plebiscite the question whether the people of the Isthmus prefer allegiance to the Republic of Panama or to the Republic of Colombia.

"Second : To submit to a special court of arbitration the settlement of those claims of material order which either Colombia or Panama, by mutual agreement [1] may reasonably bring forward against the other, as a consequence of facts preceding or following the Declaration of Independence of Panama."

This formula excluded, as is apparent, all arbitration on the fact of the revolution proper. It provided for the restitution of the Isthmus to Colombia, if, as she pretended, the secession had been made by a *coup d'Etat* against the will and consent of the citizens of the Isthmus.

General Reyes' guns were spiked for good. He had but to withdraw and leave Washington, which he did.

His mission was to have but one further consequence. It took place before the courts of justice of France.

General Reyes' Sophism condemned by the French Courts

General Reyes, as may be remembered, had maintained, with his lawyer, Mr. MacVeagh, among other errors, that the Treaty of 1846 obliged the United States to guarantee to "Colombia" the sovereignty on the Isthmus. On the strength of the same sophism, based on a casuistic interpretation of the letter of the conventions, it had been held that the French company could not sell their rights without the authorisation of "Colombia."

The law granting the concession had indeed prescribed that the authorisation of "Colombia" was to be obtained before selling the property to a foreign Government.

Both the thesis bearing on the violation of the Treaty of 1846 by the United States, and that bearing on the violation of the law of concession by the French company, have the same basis and the

[1] This is the only modification to the text I had suggested to Secretary Hay. I had written, *may justly, in the opinion of the United States,* instead of *by mutual agreement may reasonably.*

same bearing. Both are founded on the delusion created by the false interpretation of the word *Colombia*. It means *the real and effective "Sovereign" of the Isthmus*, and nothing else.

The sophists pretend that it means the *Government of Bogota*. This interpretation was and is, and forever will be, an absurdity in law.

"Colombia" was imprudent enough to sustain its indefensible thesis before the French courts. Naturally she lost her suit, for the simple and powerful reason that rights as well as duties resulting from sovereignty follow automatically the said sovereignty, and are not attached to a word. "*Colombia*" lost her suit because the new sovereign of the Isthmus, the *Republic of Panama*, had become the entity formerly designated by the word "*Colombia*" in the concessionary law of 1878.

It has, therefore, been juridically established by competent and independent courts that the obligations of the Canal Company towards "Colombia" had been automatically transferred to the new sovereign of the territory to which they referred.

It can be said that this judicial decision applies equally to the obligations which the United States had assumed towards New Granada by the Treaty of 1846. She had been obliged to transfer the guarantee of sovereignty on the Isthmus against a foreign power from New Granada to Colombia; so now she was obliged to make a similar transfer from Colombia to the Republic of Panama. For the guarantee applied not to the mere title of the original contracting power, but to the actual holder of sovereignty over the Isthmus.

This does not prevent the publication now and then of violent articles on a case now judged in Law and in Equity.

Certain Americans still call a "chapter of national dishonour" a series of facts which are in strict harmony with the legal standpoint declared to be the only one admissible by foreign courts of justice, entirely free from any prejudice as to the real bone of contention which is the liberty of the Isthmus.

Departure of Reyes—Collapse of Colombian Invasion

The votes of the Legislature, requesting their Senators to vote for the Hay-Bunau-Varilla Treaty and the departure of the Reyes mission, began, in the middle of January, to damp the ardour of the opponents of the Treaty.

They had worn themselves out in trying in vain to transform into proofs of collusion, what was simply the movements of ships and the instructions issued for the maintenance of order on the Isthmus.

These measures were simply preventive police measures, taken in anticipation of a revolution of which everybody was speaking; and

which, as I have shown by extracts, the entire press had announced. The obvious bias and insincerity of these accusations became consequently more and more apparent.

On the other hand the force of my assertions as to the impossibility of invading the Isthmus by land gradually penetrated the public mind.

This prediction was soon to be rigorously fulfilled.

On January 28, 1904, the *New York Herald* announced that the Concentration Camp of Titumati, formed on the shores of the Atrato River, had been broken up.

It was the point from which the Colombian troops were to march through about two hundred miles of virgin forest and unexplored tropical territory to reach some point on the line from Colon to Panama.

The unfortunate men had not been able to advance even a mile. Fever had decimated the troops to such an extent that they had to be recalled in haste.

Proposal of an Inquiry into my Conduct: I reply by Raillery

In their exasperation at not being able to shake the impregnable position of the American Government the assailants decided to concentrate their attacks on me.

On January 13, 1904, Senator Stone proposed to open an inquiry into my acts. After modifying his text he repeated the motion on the 26th.

Here is the beginning of the resolution submitted to the Senate :

"*Resolved :*

"That the Committee on Foreign Affairs is hereby instructed to investigate and ascertain whether *Bunau-Varilla* or other persons residing in the United States, and subject to our laws, did aid or promote an insurrection in *Panama* against the *Republic of Colombia*." . . . .

The idea of opening a parliamentary inquiry into the acts of a man covered by diplomatic immunity—a thing regarded as sacred even by half-civilised peoples—is a sufficient proof of the frenzied aberration prevailing in certain minds.

I decided to answer by a jest. Those who were attacking me, Senator Morgan above all others, prided themselves publicly and constantly on having supported Palma when he had organised, on the territory of the United States, an insurrection against Spain.

I suggested to my friend Mr. Mitchell, the brilliant editor-in-chief of the *Sun*, to propose in his turn the following resolution, as a complement to Senator Stone's motion :

"*Resolved :*

"That the Committee on Foreign Affairs is hereby instructed to investigate and ascertain whether *Estrada Palma* and other persons residing

in the United States, and subject to our laws, did aid or promote an insurrection in *Cuba* against the *Kingdom of Spain*." . . . .

Edward P. Mitchell accepted the suggestion, and the following day in a caustic editorial he pricked the bubble.

Nobody spoke any longer of the resolution of Senator Stone. It had been sufficient to place a mirror in front of it. The names of Estrada Palma, Cuba, Spain, once reflected, rendered glorious the very same facts which, with the names of Bunau-Varilla, Panama, and Colombia, appeared so abominable in Senator Stone's mind.

Ridicule had stifled this attack. However, it was a symbol of a fact: my person was to be the battle-field of the supreme efforts for killing the Treaty I had signed.

It was necessary to persuade the Senate and the nation that I was but a vile and shameless adventurer. They thus hoped to bring the Senate to refuse the ratification of a treaty signed by such a man.

The shame of such a refusal would undoubtedly besmirch President Roosevelt, Secretary Hay, and the whole Republican party on the eve of the presidential election.

Such was the last phase of the strategy adopted.

Slanderous Article of the "World"

On January 17, 1904, the ignominious conspiracy came to a head in a scandalous article in the *World*, a widespread paper. It covered seven out of the nine columns of the front page. It was entitled in big letters: "The Panama Revolution, a Stock-gambler's Plan to make Millions."

It echoed the calumnious assertion inserted in the letter of General Reyes, of December 23 preceding, to Secretary Hay: "The Panama Revolutionists counselled by *speculators*," etc. It developed with impudent precision the outrageous fabrication that the revolution of Panama had been made by a gang of low speculators of whom I was the moving spirit.

This unqualifiable invention formed the warp of the tissue. The weft was made of true facts, hitherto unknown, referring to the episodes of the conspiracy which had prepared the revolution in Panama.

The names of all the men who had been mixed up with the inception were pronounced save one. The one omitted was—William Nelson Cromwell.

This strange omission struck all those who in various degrees knew anything of the history of this period.

As I thought, judging from its attitude, that the *World* had been in this circumstance the victim of the odious invention but not its

author, I requested it to declare whence it had obtained its information. The *World* refused to state its *source*. For a moment I thought of bringing an action against this paper to obtain it. On the advice of my counsel, however, and owing to the slight probability of forcing by judicial procedure the *World* to reveal the origin of the article, I dropped the matter.

Time alone was to raise a corner of the veil concealing the Truth.

The hand which brought to the *World* this infamous article was exposed before a Committee of the House of Representatives nine years later. In the document of Congress to which I have already referred, *The Story of Panama*, can be read on p. 680, above the signature of Mr. Earl Harding, a staff correspondent of the *World*, the following sentence referring to the article of January 17, 1904:

"The facts were brought to the 'World' by Jonas Whitley of Mr. Cromwell's staff of press agents, and the 'World' holds a receipt for $100 *for the 'tip.'"*

No protest from the person so designated had, so far as I know, reached the Committee on Foreign Affairs up to the end of the session, six months later, nor as to the subject to which I referred in the chapter entitled "The Cablegram Unqualifiable" (see p. 404).

It was, however, of the highest moral interest for the counsel and general representative in America of the new Panama Company to demonstrate that it was not his press agent who had brought to the *World* the elements of an article, the purpose of which was obviously to prevent the ratification of the Treaty by the United States. His superior moral interest commanded him likewise to establish that he had not transmitted through intermediaries this "Cablegram Unqualifiable," the evident aim of which was to prevent the ratification of the same Treaty by Panama.

The ratification of this Treaty was indeed the materialisation of the ardent hope of the French company and its only protection against a complete failure. It was, therefore, Mr. William Nelson Cromwell's strict duty to do everything in his power to further ratification by both contracting parties.

It was also his strict moral duty to contribute to the success of the acts prepared by the man who had obtained his reintegration into the service of the French company, and thus to pay his debt of gratitude, while at the same time fulfilling his professional duty.

The "Cablegram Unqualifiable," of October 30, 1903, and the article of the *World* of January 17, 1904, were both a tissue of the most wicked and venomous assertions against myself and the work I had accomplished.

From the double point of view of professional and personal duty the

consciences of all men of honour would have felt relieved if Mr. William Nelson Cromwell had demonstrated that the documents in question were forgeries. They would have welcomed the announcement of the prosecution before justice by Mr. Cromwell of those responsible for these documents.

It is to be hoped that the matter may still be cleared up before a court of justice or of honour so that those concerned may be vindicated.

The article of the *World* was followed up by other virulent and venomous attacks against me.

When the reporters rushed to ask how I meant to answer them I replied smilingly: "Remember the fable of the Snake and the File. It will give you better than anything else a picture of the future and of the result of the struggle. One by one you will see broken fangs of the exasperated snakes and their powerless jets of venom falling on the ground. Nothing is more amusing than the spectacle of enraged and impotent wickedness. Buy your seats at the theatre."

This is exactly what took place. The last assaults against the ratification were thus repulsed.

All the weapons of the opposition had been successively broken one after the other against the steel of the monument of Truth and Public Interest.

The public was growing impatient at the list of discourteous epithets, and of baseless assertions. Senator Morgan was to pronounce his tenth fiery speech.

Death of Senator Hanna

Just when the beaten enemy, mad with rage, was about to withdraw a sad incident took place.

Senator Hanna died at the very moment when the day of the vote on the Treaty, which meant the victory of Panama, was fixed by the Senate.

The great citizen who had made this victory possible in 1902 had been unable to take a share in the campaign of 1903–4.

Immediately after the elections of November 1903 (which by an extraordinary coincidence happened on the same day, the third of the month, as the revolution of Panama), he was taken ill.

These elections which were his greatest political triumph, and which led his dearest friend, Colonel Myron T. Herrick, to the Governorship of Ohio, exhausted Hanna.

The energy which he had lavished during the electoral campaign ruined the health of this generous and powerful man.

His life hung for two months in the balance, until typhoid fever carried him off on the 16th of February. It was on the eve of the day when his greatest thought was about to become a reality.

I paid the tribute due to this great man in writing the following letter to the Secretary of State:

"SIR,

"The dramatic event which terminates a great and noble life, at the very moment of the triumph of its foremost achievement, fills with affliction the hearts of all the citizens of the United States.

"The citizens of the Republic of Panama mourn also the loss of Senator Marcus A. Hanna, in whose keen statesmanship, in whose indomitable will, the cause dearest to them has found heroic and victorious defenders.

"I beg to convey to Your Excellency, and through Your Excellency to the President and to the people of the United States, in the name of the Government and of the people of the Republic of Panama, the expression of their deep sorrow for the death of a man whose mind was as high as his heart was great and whose name will remain engraved in the history of the greatest work of man.

"I am, sir, etc.

"PHILIPPE BUNAU-VARILLA."

The maddened exasperation provoked by the triumph of Panama, and the frenzied hatred it aroused against all those who had served this great cause, found lively expression, when Hanna died, in the *Evening Post*.

This paper, in spite of its aristocratic pretension and its affectation of high principles, broke the sacred truce of death which is respected even by savages, even by criminals, even by the lowest types of humanity. On the 22nd of February, on the eve of the triumph of Panama, when the tomb of the great and generous citizen was scarcely closed, the *Evening Post* printed these sacrilegious words about him: *His skin was ever tough, Conscience was a word unknown to him!*

This supreme insult to Hanna was to be classed with those the virtuous sheet was pouring upon me. They did not prevent the march of Truth and of History, and the Treaty was ratified on the following day.

Hanna's funeral ceremony took place in the Chamber of the Senate.

On the occasion of these obsequies my place was marked out in the front rank of the Senate with the rest of the Diplomatic Corps.

Behind me, as if by a derisive trick of Fate, sat my, and Hanna's, mortal—but defeated—enemy, Senator Morgan.

THE ENEMIES OF THE HAY-BUNAU-VARILLA TREATY COMPELLED TO VOTE FOR IT

They were in a desperate and almost pathetic state of mind, the men who, although political adversaries of President Roosevelt, voted for a measure which was to cover him with everlasting glory, and those who, although partisans of Nicaragua, voted by force for Panama, its victor.

Senator Money, on February 20, 1904, expressed, in the following terms, the singular moral coercion to which he and his friends were obliged to succumb :

" So this Treaty comes to us negotiated by a *de facto* Government; perhaps the people there having no voice in it whatever. Perhaps the people, if a vote were taken, would be exceedingly hostile to it.

" *But it comes to us more liberal in its concessions to us and giving us more than anybody in this Chamber ever dreamed of having.*

" We have approved over and over again treaties with Costa Rica and Nicaragua and other countries for a canal, but *we have never had a concession so extraordinary in its character as this.*

" *In fact it sounds very much as if we wrote it ourselves ; and I should believe that we did write it ourselves, except for the fact that the Administration had before, having ' carte blanche,' written such very bad ones that I do not believe it could write such a good one for us.*"

After thus expressing his grief at the perfection of the Treaty by which I had baffled the only possible pretext for rejecting it, Senator Money explained his vote by the pressure of *an exterior* force :

" There is another reason, why I shall support the Treaty. The Legislature of my State, that has lately honoured me with a re-election, passed a resolution requesting me and my colleagues to vote for this measure.

" *I do not mean to say that I prefer the Panama route to the Nicaragua route, for I do not.*"

Last and supreme protest of the vanquished !

It was a true picture of the frame of mind of this group of men, who, owing to the number of their votes, had the power to reject a measure they abhorred, yet who voted for it under the injunction of the people.

American Ratification of the Hay-Bunau-Varilla Treaty

At last, with February 23, arrived the day of the vote on the ratification.

Before the Senate withdrew to take up the matter in secret executive session, Senator Carmack, of Tennessee, let loose on me the furious torrent of all that an accumulated hatred may inspire in a defeated enemy.

It was a kind of literature familiar to him. He was some time afterwards, on November 9, 1908, to receive his reward, in the shape of a revolver shot, from one of his exasperated victims, Colonel Duncan Brown Cooper. It suddenly cut short a career full of promise for the lovers of defamation.

At last the ratification of the Hay-Bunau-Varilla Treaty was voted by 75 senators against 17, after one of the most violent, prolonged, and memorable discussions the American Senate ever heard in open session on an international treaty.

I desired to associate the name of Ferdinand de Lesseps, the initiator of this great effort of mankind, with the fact beginning the new era.

I concluded the cablegram announcing the great event to the Government of Panama with the following words :

"While defending the great French enterprise, which was almost killed by falsehood and calumny, I acted in the capacity of a French citizen defending a great moral interest of France.

"This excludes all idea of material remuneration.

"Therefore I request the Government of the Republic of Panama to withhold the salary of my office. It should form the nucleus of a fund for the erection of a monument, by the grateful Republic of Panama, to Ferdinand de Lesseps, the great Frenchman whose genius has consecrated its territory to the progress of the World for the honour of Panama and for the glory of France and of the United States.—PHILIPPE BUNAU-VARILLA."

As I was going through the hall of my hotel to take this cablegram to the telegraph office somebody seized my hands to express to me his congratulations. It was the lawyer Cromwell. I had not seen him for three months.

With the ratification on February 23, 1904, of the Hay-Bunau-Varilla Treaty I had won the last battle and assured the resurrection of the great French undertaking.

It was fifteen years two months and nine days after December 14, 1888, that fatal day when its destiny was handed over to the powers of destruction, by a financial error which had deceived the hopes of France, and had deprived her of the fruit of the expense of so many efforts, of so much blood and of so much money.

During all this long period I could say that I had never forgotten for one single day the duty I had assumed of vindicating French genius by the triumphs of its immortal creation.

I had not been able to convince my country, which had been deceived by impious sons. She had banished the child which she had brought forth, but I had succeeded in having it adopted by a friendly nation.

I had preserved her offspring from the shameful death which so many passions, let loose from every quarter of the horizon, had prepared for it.

THE HOUR OF THE RESURRECTION OF THE PANAMA CANAL

It remained to fulfil two formalities, the Proclamation of the Treaty by the President of the United States and the Exchange of Ratifications.

The first took place on February 25, 1904, and the second on the day following.

The undersigned Plenipotentiaries having met together for the purpose of exchanging the ratifications of the treaty signed at Washington, November 18, 1903, between the Republic of Panama and the United States of America, providing for the construction of a ship canal to connect the waters of the Atlantic and Pacific Oceans, and the ratifications of the treaty aforesaid having been carefully compared and found exactly conformable to each other, the exchange took place this day in the usual form.

In testimony whereof, they have signed the present Protocol of Exchange and have affixed their seals thereto.

Done at Washington, this twenty-sixth day of February, one thousand nine hundred and four.

P Bunau Varilla

John Hay

REPRODUCTION OF THE ACT OF EXCHANGE OF RATIFICATION OF THE HAY-BUNAU-VARILLA TREATY

At eleven o'clock in the morning Mr. Hay and myself exchanged the two Treaties duly ratified by our respective Governments.

In placing our signatures beneath the Act which registered this great fact we rang the hour of the *Resurrection of the Panama Canal.*

It was for him and for myself one of those moments which remain engraved in the memory for the rest of one's life. We were both of us deeply moved.

Two strokes of a pen were sealing forever the Destiny of the Great Thought which had haunted Humanity during four centuries.

In an instant I beheld, focused before my eyes, the efforts and the struggles of the centuries to wring from Nature its mystery, from Man his prejudices.

I thought of all those heroes, my comrades in the deadly battle, worthy grandsons of those Gauls who conquered the Ancient World, worthy sons of those Frenchmen who conquered the Modern World, who fell in the struggle against Nature, a smile on their lips, happy to sacrifice their lives to this work which was to render still more dazzling the glory of French genius.

I thought of the shameful league of all the passions, of all the hatreds, of all the jealousies, of all the cowardices, of all the ignorances, to crucify this great Idea, and with it all those who had hoped, through its realisation, to give France one more glorious page in the history of Humanity.

I thought of my solitary work, when I went preaching the Truth on the highways.

I thought of the untold number of stupidities I had had to destroy, of prejudices I had had to disarm, of insults I had had to submit to, of interests I had had to frustrate, of conspiracies I had had to thwart, in order to celebrate the Victory of Truth over Error and mark at last the hour of the *Resurrection of the Panama Canal.*

Mr. Hay silently shared my deep emotion, because he had been the witness of the last four months of efforts, and his mind travelled back with mine over the twenty years which had preceded them.

The two signatures once appended we shook hands and I left him simply saying: "It seems to me as if we had together made something great."

I went on, having at last unburdened my heart of the load which had so long weighed on it.

I had fulfilled my mission, the mission I had taken on myself; I had safeguarded the work of the French genius; I had avenged its honour; I had served France.

EPILOGUE

WHEN I left the Department of State I went to the first telegraph office to inform the Government of Panama that I had accomplished my task, and that at the same time, as Minister Plenipotentiary of the Republic of Panama, I considered my mission ended. Soon after, the American Government made use of the rights of option which had been granted by the New Company in January 1902. Two prominent jurists, Messrs. W. A. Day, Assistant Attorney-General of the United States, and Charles W. Russell, special Assistant Attorney-General of the United States, came to Paris to execute the deed. They signed it on April 22, 1904, and it became binding on the morrow by ratification at the meeting of the shareholders of the New Company.

After paying $40,000,000 to J. P. Morgan & Co. for their subsequent transfer to the New Company, the American Government resumed on the 4th of May, 1904, the work of completion of the great French undertaking after fifteen years four months and twenty days' practical suspension of activity.

THE GRATITUDE OF FRANCE, THE UNITED STATES, AND PANAMA

I will mention three among the various expressions of gratitude which came from the most distant sources, and which my friends symbolised in the gift of an admirable medal by Chaplain.

I take these three examples because they express the sentiments of the Governments of the three interested countries.

The Government of the French Republic immediately conferred upon me the Cross of Officer of the Legion of Honour. It was the first distinction connected with the Panama Canal given since the downfall of the old company in 1888. This promotion in the Legion of Honour from the rank of Knight to that of Officer possessed, in the circumstances, a significance particularly precious to me.

Secretary Hay interpreted the sentiments of the Government of the United States. He wrote, when the French Government had shown me, as I have just stated, its appreciation of my services to France, this simple and eloquent testimony of the appreciation of his Government of my services to the United States :

It is not often given to any man to render such a service to two countries and to the civilised world as you have done.

As to the Republic of Panama the expression of her gratitude came later, but it was all the more eloquent and explicit.

When Dr. Amador died, after having filled the office of President of the Republic, I recalled only the decisive and courageous part he had played in the liberation of his native land.

I had pardoned and forgotten the weakness he had shown in becoming a party to the little intrigue begun against me after the Declaration of Independence.

I wired the 3rd of May, 1909, to President Obaldia the following cablegram :

" At the moment of the death of your illustrious predecessor, I wish to express to Your Excellency how much I share the sorrow of the Republic which he has contributed to establish.

" His name will remain forever associated with the work of the Union of the Oceans, a thing which would have remained a chimera without the formation of the Republic of Panama.

" My mind goes back with emotion towards those tragic moments of September 1903, when Amador, betrayed and abandoned, came to confide to me his despair, and when we undertook together the liberation of the Isthmus, which has formed the base of the realisation of the ' Straits of Panama.'

" His heroic patriotism led the revolution of November 3 to a successful issue.

" The slaying of Oppression has unchained Progress.

" PHILIPPE BUNAU-VARILLA."

On May 13, 1909, I received the following answer from President Obaldia :

" I am grateful to you for the share you take in the sorrow caused by the death of President Amador. The remembrances you recall have deeply moved the public sentiment. It is a page of our history.

" Our people will keep eternally engraved in their memory, your fruitful services, and will put in a pre-eminent place the names of Amador and your own.

" The national gratitude gives them the title of ' Benefactors of Panama.'—OBALDIA."

SUPPLEMENTARY CHAPTERS OF THE RESURRECTION

I.—THE "KEY OF THE SECRET OF THE STRAITS"
II.—THE PANAMA TOLLS
III.—THE FORTIFICATION OF THE STRAITS OF PANAMA

THE "KEY OF THE SECRET OF THE STRAITS"

THIS book is devoted to the history of the Junction of the Oceans. It would remain incomplete were not a brief glance cast on the long-drawn-out battle of prejudices, ignorances, and vanities fought on the technical question.

Such a survey will convince every impartial mind that the period of the old company, formed and presided over by Ferdinand de Lesseps, but in fact directed by M. Charles de Lesseps, was that of the methodical investigation and of the scientific solution of the great problem.

CHAPTER I

THE DEFINITION OF THE THREE IDEAS

THE battle in question was waged round three principal Ideas.

In order to avoid the frequent repetition of long definitions, and with a view to rendering as clear as possible the *exposé* of a question which is in itself sufficiently confused, I shall give once and for all the definition of each of these Ideas. I shall afterwards designate them only by the names of their authors.

THE FERDINAND DE LESSEPS IDEA

The first Idea is that expressed in the will of the International Congress convoked and presided over by Ferdinand de Lesseps in 1879. It is the idea that caused the creation of the Universal Inter-oceanic Panama Canal Company by Ferdinand de Lesseps, and which was the object of all this Company's efforts from its origin in 1881 till the autumn of 1887.

It is inspired by the example of the Suez Canal, though submitted to certain modifications, due :

First, to the presence of tides in the Pacific, tides of 20 ft. amplitude ; while in the Atlantic, at Colon, there are tides of only 2 ft. amplitude, and the oceans have the same mean level.

Secondly, to the existence of a great river, the Chagres, which flows into the line of the Canal twenty-eight miles from the Atlantic Canal entrance, and the floods of which are sudden, violent, and short.

The only difference between the project adopted by Ferdinand de Lesseps for Panama and the one he had realised at Suez is due to these two causes.

Tide locks at the outlet of the Canal on the Pacific side prevented the tides from invading the waterway, which was freely opened on the Atlantic.

A great dam at Gamboa, just above the point where the river cuts the Canal line, retained the waters of the river, and formed a vast lake at a maximum altitude of 200 ft. above the sea where the Chagres floods were stored and controlled. A lateral deviation along

the sea-level Canal let off the waters of the Chagres from the lake to the sea.

The process of execution was the same as at Suez, dredging in water of the loose ground in the lower portion of the great valleys, excavating of loose or hard ground or rock outside of the lower portions of the great valleys, thanks to excavating machines on rails, and transportation of the spoils by trains drawn by locomotives to the dumps in the lateral valleys outside of the Canal.

The dimension of the prism of the Canal could vary (72 ft. bottom width with the old Company; 150 ft. with the Isthmian Canal Commission in 1905; 200 ft. in the Culebra Cut and 150 ft. elsewhere with the International Consulting Board in 1906); but they were necessarily restricted on account of the expenditure of time and money entailed by the *enormous excavation to be made before a ship could pass.*

Such were the characteristics of the *sea-level canal* as defined and undertaken by Ferdinand de Lesseps, or understood by those who later on sustained his first ideas.

It was the *idea of the direct execution of the sea-level canal.* I shall call it the *Ferdinand de Lesseps Idea.*

The Godin de Lépinay Idea

The second Idea likewise had its birth in the Congress of 1879. It consisted: First, in damming the Chagres on the Atlantic side and the Rio Grande on the Pacific side, at the points nearest to the respective oceans where a dam should be demonstrated as possible; secondly, in creating, thanks to these dams, two lakes at the same level of about 80 ft. altitude; thirdly, in uniting these two lakes by a cut through the central mass of the Isthmus; fourthly, in joining each of these lakes with the respective oceans by a flight of locks to overcome the difference of level with the sea, and then, by a short section of canal at sea level.

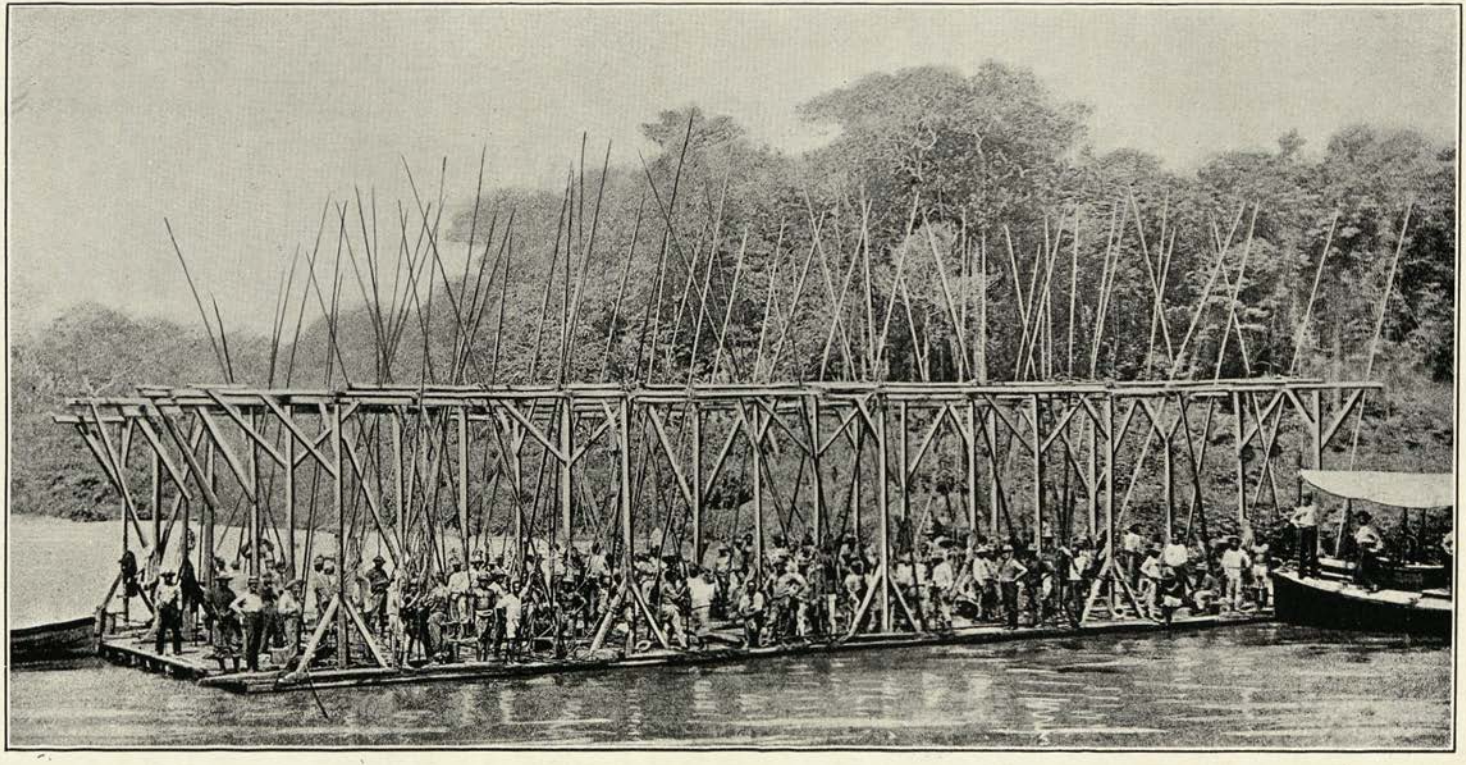
The process of execution was the same as in the preceding plan. The second Idea was inspired by the project of a canal through the Isthmus of Nicaragua, the natural dispositions of which are thus artificially reproduced.

Such were the characteristics of the canal with a central lake and perpetual locks which Godin de Lépinay proposed at the Congress of 1879.

It was the Idea of the artifical Nicaragua. I shall call it the *Godin de Lépinay Idea.*

The Bunau-Varilla Idea

The third Idea was based on the *creation of a new process of execution* in order to free the final end (which is the union of the



UNDER-WATER MINING BETWEEN THE MINDI HILLS AND COLON IN 1887

This photograph shows the method and appliance for the preparatory work for dredging rock under water as it was initiated in 1885. To-day mechanical rock drilling takes the place of hand labour.

The photograph facing p. 438 shows the dredge at work after rock has been completely disintegrated.

oceans) from the restrictions which the usual process of execution necessitated.

This third Idea results from the principle that the means must be adapted to the end and not the end to the means.

Both the *Ferdinand de Lesseps Idea* and the *Godin de Lépinay Idea* resulted from the adaptation of the end to the means. Each assumed the most perfect form which its author had believed realisable, within the time, and for the reasonable sum, which the means of execution allowed him to fix.

The third Idea resulted, on the contrary, from the adaptation of the means to the end.

When I arrived on the Isthmus in October 1884 the works were beginning to take regular shape. After several months I realised that the *Ferdinand de Lesseps Idea*, as well as the *Godin de Lépinay Idea*, were both doomed to failure, because they were beyond the scope of a private company deriving its resources from credit.

I accordingly directed all my energy to discovering a new process of execution making it possible to attain and even go beyond the generous aim of Ferdinand de Lesseps.

This new process was to make general, throughout the Isthmus, dredging on water of the loose earth as well as of the hard rock.

I have already narrated, and I need not repeat therefore, how in the first half of the year 1885 I made the crucial experiment near Colon. It proved to me that the cost of removing submerged rock was henceforth reduced to the cost of open-air rock-excavation instead of being six to eight times more expensive.

I have related how a contractor found it advantageous to use my new method for the excavation of the prism of the Canal through the Mindi Hills some hundred yards from the point where I had made my first experiment. I have related how I installed dredging on water in the Culebra Cut on the slopes of the saddle-back about 60 ft. above the level of the river flowing at the foot of the slope, on the Pacific side.

By general application of the dredging to all classes of ground, soft as well as hard, I had forged as it were my first tool.

Something else was needed, however—namely, a continuous sheet of water distributed in sections of different levels, united by locks, from one ocean to the other.

As locks can be erected only in solid soil it was necessary, in order to obtain this second tool, to lower the soft grounds of the Culebra saddle to a sufficient level to admit of the creation there of the summit level of the lock canal.

The certainty of attaining the required depth of the Culebra Cut in a determined space of time was obtained in 1887.

With these two tools at my disposal I was master of the technical problem.

I was also master of the financial problem.

The first lock canal strictly necessary for the dredges, if the works of excavation had been exclusively in view, could also be used for the passage of ships. It sufficed to give to the canal the required depth, and to the locks the required dimensions.

Once the lock canal was realised and the provisional canal opened to navigation, the financial problem was solved.

For the engineer the lock canal was but the "work-ground" of the sea-level canal excavation, and the main object of its successive levels was to float the dredges attacking the bottom and the barges transporting the spoils. It was easy to allow the passage of inter-oceanic navigation over one part of the surface of the Canal while work was in progress on the rest of it.

Thanks to the two tools thus forged for its realisation the final object, namely the free passage at sea level from Ocean to Ocean, was freed from the terrible servitudes which the *Ferdinand de Lesseps Idea* dragged behind it.

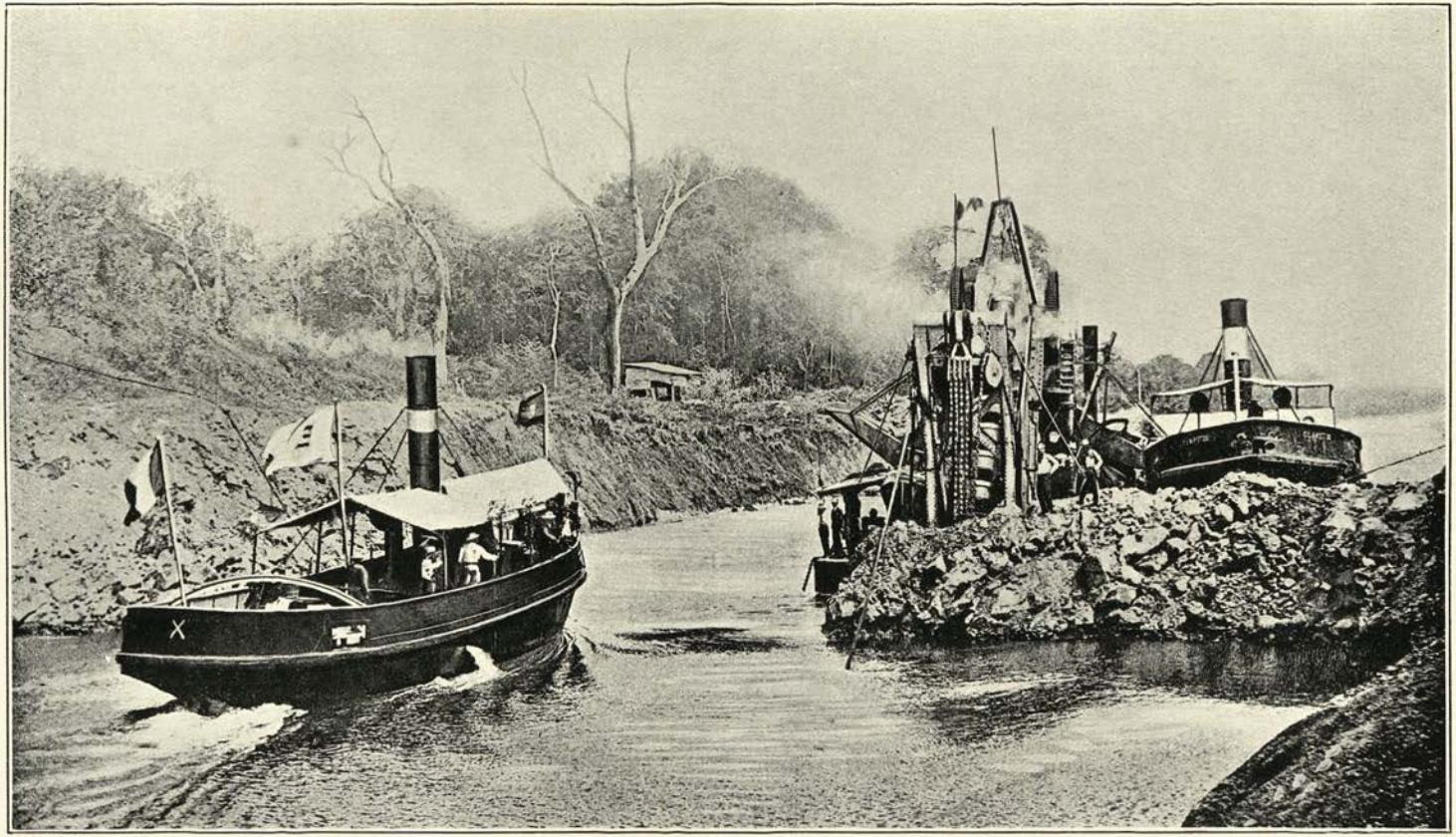
With the new Idea the servitude of Time was eliminated. It was no longer necessary to reckon with the obligation of excavating the last cubic yard before cashing the toll of the first ship.

With the new Idea the servitude of the risks of the Culebra Cut was eliminated. The terrible danger of gigantic slides in a cut which was without precedent, both for depth and for lack of consistency of the soil, thus disappeared. It was possible to take all precautions and to widen on an enormous scale, if necessary, the top of the cut in order to prevent slides. No one was any longer enslaved by the foolish economy of steep slopes, the adoption of which the need of economy in time and money rendered imperative with the two first-named Ideas.

With the new Idea the servitude of the Risks of the Chagres was eliminated. It was possible, as there was no longer any time-limit, to give to the new bed of the deviated outlet of the lake such a width and depth as to render any overflow into the sea-level canal cut impossible. Perhaps it would be even possible to give to the canal such a width as to enable it to receive the Chagres floods without disturbing navigation.

This third Idea was evolved in my mind in 1885 by the contact with Isthmian difficulties. I fully expounded it in 1887 to the old Canal company, for the service of which it had been begotten and to whose moral paternity I attribute it.

It was among the most precious of the acquisitions resulting from the immense effort realised by the old company, for it is in this Idea—as will be seen later on—that resides the *Key of the Secret of the Straits.*



ROCK DREDGING THROUGH THE MINDI HILLS IN 1888

This photograph shows how the system of dredging rock was as far back as 1887–1888 used in the Canal by a contractor who had preferred it to dry excavation for piercing the Mindi Hills.

M. Ferdinand de Lesseps substituted the third Idea for his own original one in the autumn of 1887.

It became the programme of the Panama Company, the programme which was so unhappily, so absurdly, stultified by the financial crisis of 1888, the programme which would have ensured the opening of the Canal to navigation in 1892, provided the last issue of bonds had been covered.

I developed it again in September 1905, in all its amplitude, and with all its glorious consequences, before the International Consulting Board. I then proposed, every practical and necessary means of execution being appropriate, the opening of a veritable free " Straits " between the two oceans, 500 ft. wide at the bottom and of a minimum width of 600 ft. at the water line.

Such were the characteristics of the third Idea leading up to the realisation of the " Straits of Panama."

It was *the Idea of the indirect execution of the sea-level canal* implying the establishment of a preliminary provisional lock Canal, through the central mass, in order to reduce to the minimum the time and expense of the dry excavation, in opposition to the *Ferdinand de Lesseps Idea*, which was, as I have said, the Idea of the direct execution of the *sea-level canal* and which necessarily involved a narrow cut, excavated in the dry and dangerously exposed to slides both before and after the opening.

This plan I shall call the *Bunau-Varilla Idea.*

CHAPTER II

THE BATTLE OF THE THREE IDEAS

If the general history of the Panama Canal, from the downfall of the old company in 1888 to its resurrection in 1904, presents the most extraordinary picture of the outburst of human passions and errors, its record from the technical standpoint is hardly less surprising.

The history of the technical evolution of the Canal has to do with a world which one might be disposed to believe to be more inaccessible to prejudices, to passion, to injustice, and to error, more dominated by the majesty of facts, and by the inflexible laws of experimental truth.

Alas, that is not the case!

No better evidence of human weakness and vanity could be had than the following pages.

The fierceness with which men defend ideas which ignorance has first led them to support, is indeed extraordinary. The denial of the most obvious facts, the disdain of documents establishing them, appear really startling when such acts are committed by men of high culture, of unchallenged sincerity, but blinded by an erroneous theory.

In the presence of such an attitude one finally comprehends what an exceptional effort of genius was necessary for the great philosophers, Bacon and Descartes, to formulate the two basic thoughts which have forged a new humanity.

Bacon gave us the exclusive faith in facts revealed by Experience, and the method of Induction by which we can rise from the facts themselves to the law which governs them.

Descartes tore from our eyes the bandage which the Spirit of Authority [1] has bound over them.

[1] When I speak here and later on of the *Spirit of Authority* I mean exclusively to call attention to its sterilising effect on intellectual speculations. It generates a blind belief into scientific dogmas and closes men's eyes to the revelations of Experience.

At the same time the Spirit of Authority, while detestable in the intellectual gestation of a conception, becomes indispensable for its realisation. Without it no co-ordination of effort is conceivable.

Action without the Spirit of Authority is paralysed by anarchy: Thought with the Spirit of Authority is paralysed by error.

But the fruitful seed of these thoughts has germinated in relatively few brains. It remains sterile in the minds of most men.

It is the Spirit of Authority which constantly struggles—using all weapons at its disposal—against the revelations of experience.

It imprints upon the majority of men, even upon those whom their semi-scientific career ought to protect, a sort of blind and almost hysterical fanaticism, such as determined the clash of conflicting dogmas in the religious wars of the sixteenth century.

This frame of mind is not peculiar to any special nation. It is a weakness inherent in the human intelligence, and to be found everywhere; and this we shall see in the record of the oscillations of technical opinions between the three *Ideas* which have successively prevailed in the course of the struggles for the realisation of the Panama Canal.

Alternate Triumph and Decadence of the Three Ideas

The *Ferdinand de Lesseps Idea* first triumphed in the International Congress of 1879.

The *Godin de Lépinay Idea* was refused even a discussion.

The *Bunau-Varilla Idea* triumphed when it was outwardly expressed for the first time in 1887, because it offered at the time the only issue in the midst of the most pressing and menacing danger.

But when the financial error of which I have spoken caused the ruin of the enterprise, just when everything was virtually saved by the magic of a rational programme, its star began to dwindle, as had dwindled that of the *Ferdinand de Lesseps Idea.*

The Guillemain Commission, appointed by the receiver of the old company, refused in its report of 1890 to make the slightest allusion to the *Bunau-Varilla Idea.* They treated it exactly as the International Congress of 1879 had treated the *Godin de Lépinay Idea*—that is to say, with silent and haughty contempt.

On the other hand they then appropriated entirely to themselves the *Godin de Lépinay Idea* and established on its base their proposition of a perpetual lock canal. It was the counterpart, the negation of the decisions of the International Congress of 1879. The dogma, first disdained, triumphed twelve years later over its earlier victor.

The Spirit of Authority held as null and void what Experience had extracted from facts during these twelve years. Experience had revealed that the cost of excavation of rock under water had been lowered to the cost of rock excavation in open air.

This did not in the least matter.

A contractor had carried out important works, thanks to the new

method, and made considerable profits on the prices which had been allowed on the basis of rock excavation in the dry.

What did this negligible protest of Experimental Truth prove against the established belief that the extraction of rock under water was at least five or six times more expensive than in the open air ?

The Guillemain Commission virtually declared that such a protest of Experimental Truth could not be admitted in court. They thought it beneath their dignity even to discuss it. They contented themselves with the dry and final assertion that it was impossible to dredge rock.

The Spirit of Authority had accomplished its work and destroyed, at the same time, all hope of concluding the admirable enterprise for the glory of France and for the welfare of its citizens.

By way of compensation the Guillemain Commission embodied the *Godin de Lépinay Idea* in the form of a perpetual lock canal. Their foresight may be estimated from the following characteristic fact.

The *permanent* locks of the Guillemain Commission were given the same dimensions as the *provisional* locks of the old company, that is, 590 ft. by 65½ ft.

If the Canal of the Guillemain Commission had been opened as they proposed in 1899, less than twelve years afterwards ships might have appeared before these perpetual locks demanding passage with a length of 882 ft. and 94 ft. in breadth.

Later on the triumph of the *Godin de Lépinay Idea* suffered partial eclipse before the *Comité technique* of the new Panama Company. As I have before stated this Committee presented in 1898 a proposition largely copied from my plans of 1892.

But what still triumphed even then was the principle of the perpetuity of the lock system.

Like the Guillemain Commission, the *Comité technique* had refused to consider the *Bunau-Varilla Idea :* the dredging of the rock, and the principle of transformation which would have so much facilitated its propositions.

A German engineer who was a member of this Committee anathematised me later on because I had dared to make a slight allusion to the transformation in my lectures of 1901 in the United States.

The Spirit of Authority maintained the dogma of the impossibility of extracting rock under water save at an exorbitant cost.

At last 1901 arrived and with it the report of the Isthmian Canal Commission.

The star of the *Godin de Lépinay Idea* became more resplendent than ever. That proposition was textually adopted. A dam across

the Chagres valley was projected at Bohio, precisely the place which Godin de Lépinay himself had pointed out as a propitious one for a secure dam.

He had named the location of Gatun, lower down the river, but only on the reservation that a dam there should be recognised as possible of execution, a thing which he thought unlikely.

As to ulterior transformation to sea level, the question was not even considered.

The Isthmian Canal Commission proclaimed in the clearest manner their opinion as to the relative costs of excavation of rock under water and in the open air. The fact is registered by their own list of standard prices (p. 67 of their report):

Removal of hard rock per cubic yard	$1·15
Removal of soft rock per cubic yard	$0·80
Removal of rock under water per cubic yard . .	$4·75

The Guillemain Commission and the *Comité technique* had no reason whatever, save the respect for the Spirit of Authority, to bury in silence facts of which they had been almost the witnesses.

The Isthmian Canal Commission sinned solely through ignorance of the progress which I had made in 1885 and the results attained.

I must say I made no effort to enlighten them on this particular subject. At that time the fight was raging between Panama and Nicaragua. I had no wish to increase the natural number of my enemies by raising this new question, which undoubtedly would have struck at venerable and time-honoured principles.

After the 4th of May, 1904, that is after the Canal was in the hands of the United States, a dim light began to rise over the long mists of prejudice of the *Godin de Lépinay Idea.*

The chief engineer of the Canal, Mr. John Findlay Wallace, a man of high views, began, in 1905, to remark what I always had sustained, and to think, that a perpetual lock canal was an absurdity.

It should have been obvious to everybody on account of the constant increase in the dimensions of ships, as well as of the enormous traffic which is bound to pass through the Canal, and of the resultant scarcity of water for lockages.

But as Mr. Wallace did not know of the solution I had put into practice twenty years before, he declared, in a report of February 1, 1905, that any *lowering of the Summit Level was impossible, on account of the cost of such operation and of the necessity of closing the Canal to traffic for a long time during the process.*

He concluded in favour of examining the question of digging direct the sea-level canal.

It was the star of the *Ferdinand de Lesseps Idea* which was now rising above the horizon after a long disappearance.

Soon after, on February 14, 1905, an Engineering Committee, formed in the Isthmian Canal Commission, and composed of General Davis, Professor Burr, and Mr. William Barclay Parsons, formally proposed the immediate and direct execution of the sea-level canal.

They projected it with tide locks on the Pacific and a dam at Gamboa, withholding the waters of the high Chagres at a maximum of 200 ft. above sea level.

This again was the condemnation of the *Godin de Lépinay Idea* and the triumph of the *Ferdinand de Lesseps Idea*.

In February 1905 the situation had exactly reverted to the conditions in the Congress of 1879. The same two dogmas were clashing against one another without taking into any account the lessons of Experience during the intervening twenty-six years.

The return to the initial conception of the Canal won over the official spheres. Its definitive and certain adoption was announced, and to this end the Isthmian Canal Commission was to be reorganised by the President. The three signatories of the report of February 14, 1905, were to be the leading members.

My Intervention with President Roosevelt

I felt I had to pay a debt of honour to the United States. She had made, on the altar of Scientific Truth, the noble sacrifice of her preferences for Nicaragua, half a century old. She had exiled the child of her own genius and adopted that of the French genius.

I could not refrain from warning her against the danger lurking in the path she intended to follow.

By a cablegram to Secretary Hay, in the course of March 1905, I requested an interview with the President. It was fixed for the end of the same month.

After a luncheon, to which Mr. Roosevelt invited me as soon as I arrived in Washington, on the 27th of March, I laid the whole question before him.

He seized all its bearings with his characteristically quick intelligence.

On the following day, a conference was held in the office of the President between him, the Secretary of War, Mr. Taft, and myself. Mr. Roosevelt made a point of himself expounding my views. He did it with admirable precision, without making the slightest error.

On the day following I received a letter from Mr. Taft requesting me, on behalf of the President, to lunch again at the White House.

He was himself invited, together with the sponsors of the *Ferdinand de Lesseps Idea*, MM. Burr and Parsons.

The President of the United States wished, in his own presence, and in that of the Secretary of War, to confront the arguments in favour of *direct construction*, the construction in the dry of the sea-level canal, the *Ferdinand de Lesseps Idea*, with the arguments in favour of the indirect construction of the sea-level canal, the construction in the wet by means of a provisory lock canal, the *Bunau-Varilla Idea*.

Some days previously, while I was on the sea, President Roosevelt had been to New York for the marriage of one of his nieces.

Meeting there a lady of the high society of New York, with whose family I have had for many years the most cordial relations, he said to her : " Do you know that M. Bunau-Varilla is coming to America ? "

" Yes," answered the lady, " my father has received a cablegram informing him of the fact."

" Do you know," continued the President jokingly, " if M. Bunau-Varilla is coming here to make another revolution ? "

After the luncheon of March 29, at the White House, the " revolution " was made, but it was made in the mind of the President of the United States.

The *Ferdinand de Lesseps Idea*, after having obviously conquered his mind and been uppermost during several months, had suddenly declined. The *Bunau-Varilla Idea*, which Ferdinand de Lesseps would himself have recommended, because it was alone capable of attaining the desired end, had become dominant.

Formation of an International Consulting Board

Two days later the consequences of this internal revolution became outwardly visible.

The President created a new and special organ of technical consultation. Soon afterwards it became known that it was to include, besides the American engineers, a technical delegate of France, a delegate of England, and a delegate of Germany. It was the body of engineers, later on known as the International Consulting Board, and which was convoked for September 1, 1905.

MM. Burr and Parsons, as well as General Davis, were members of it.

The Isthmian Canal Commission was simultaneously reconstituted, but to the general surprise, those who were expected to form its nucleus for the adoption of the sea-level canal were not appointed to it.

Before leaving the United States I wrote, for Mr. Roosevelt, a note, giving permanent form and expression to the statements that

I had made verbally. I had it printed in the month of August following for distribution to the members of the Consulting Board.

It was entitled : " LOCKS FIRST, SEA-LEVEL CANAL AFTERWARDS : *The minimum of Difficulties in the near Future—the maximum of Perfection in the distant Future.*"

I insisted in this document on the terrible risk of digging the Culebra Cut in the dry. I recommended the sinking of a well every hundred feet, in order to study all the strata of the ground. It was with a view of removing, during the period of the lowering of the summit level, whatever quantity of ground was deemed necessary for the stability of the side slopes or of softening the inclination of these side slopes in order to prevent any slides.

APPOINTMENT OF M. QUELLENNEC AS A MEMBER OF THE BOARD

On my return to France I thought that such a body of engineers composed of men appointed by their respective Governments, would be dominated like all the preceding Boards by the Dogma of the high cost of rock excavation under water.

An engineer of the *Corps des Ponts et Chaussées*, M. Quellennec, was perhaps in those days the only man occupying a high technical position who was perfectly familiar with the question at issue.

He had been for many years the Chief Engineer of the Suez Canal, and still remained its Technical Counsel.

The deepening of this great navigable highway had been for a long time held in suspense owing to the presence of rock in the bottom between the Bitter Lakes and the Red Sea.

The works I had accomplished in 1885 in Panama had removed the technical obstacle. They had demonstrated the easiness of dredging rock, once the rock had been broken into pieces as large as a paving-stone, by means of explosions conveniently disposed.

An improvement on my fundamental idea had been searched for with reference to the special problem of Suez. In order to avoid the use of dynamite, which might be dangerous for passing ships, the rupture of the rock by mechanical concussion seemed desirable instead of by dynamite explosion.

M. Lobnitz, a constructor of dredges, at Renfrew, Scotland, experimented to that end with an old system employed a long time ago at Cette in France. He took out patents towards the end of 1886 for a concussion rock-breaking machine.

Gradually the Lobnitz method had been improved, thanks to the progress of the metallurgical industry, and very economical results had been obtained thereby in the first years of the twentieth century.

Though my old pioneer method was entirely adequate to the

task of the transformation, the Lobnitz method afforded in 1905 the supplementary element of a greater economy.

M. Quellennec was admirably acquainted with the question, because he had witnessed the gradual development of the method of excavating submerged rocks, and the very low cost then obtained.

I wrote on May 5, 1905, to the President of the United States, stating how much it was to be regretted that M. Quellennec was not a member of the Consulting Board, as he was at the head of the only canal that could be compared with that of Panama.

On the 12th of July following I received for transmission to M. Quellennec the document formally appointing him to this Consulting Board.

It was announced simultaneously that the Dutch Government had also been requested to name a delegate. This was most likely done in order to prevent the European section of the Board from being half composed of French engineers. Such a disproportion might have been thought discourteous to England and Germany.

The appointment of M. Quellennec was a guarantee that the voice of Experience would at least be heard in the Board, even if it was not listened to.

Strategical Positions against the Dogmatic Spirit

I feared, however, that the Spirit of Dogmatism would take shelter in silence. I foresaw that the same tactics already employed in the Guillemain Commission and in the *Comité technique* were likely to be renewed. On my arrival in September, therefore, I advised President Roosevelt to ask the question himself, as to the possibility of transforming the Canal from the lock form to the sea-level form without interrupting navigation.

He did so on September 11, in the clearest terms, in addressing the Consulting Board at Oyster Bay :

> " I desire also to know, whether, if you recommend a high-level multilock canal, it will be possible, after it is completed, to turn it into and to substitute for it, in time, a sea-level canal without interrupting the traffic upon it."

It was no longer possible to avoid giving an answer to a question asked by the Head of the State.

The Spirit of Dogma, the Spirit of Authority, enemy of the Experimental Spirit, was, therefore, placed as it were between two fires : The question of the President on the one hand and the testimony of the Chief Engineer of the Suez Canal on the other.

I could not have had a better strategical position.

Whatever might happen, even if Error were to maintain—as in

fact it did—its predominance, it was forced to leave traces of its manœuvres. I could call it to account before the impartial opinion of the world, as I now do.

I reveal the "Key of the Secret of the Straits"

I appeared before the Consulting Board to expound the *Bunau-Varilla Idea* and the consequence now obtainable, thanks to the progress of Industry, namely, the easy realisation of what had previously been a chimera, the *Straits of Panama.*

Truth, so long gagged, could at last speak out, I could say what and where was the *Key of the Secret of the Straits.*

I had before me, with the exception of M. Quellennec, either violent partisans of the Ferdinand de Lesseps Idea, or violent partisans of the Godin de Lépinay Idea. They could no longer, however, organise a conspiracy of silence, as they had done for sixteen years.

The substance of what I said to the Board and which covers forty-eight pages of its report, can be summed up as follows :

"Thanks to the use of the dredge, the power of which has been increased in enormous proportions in the last eight or ten years, the cost of excavation on water, already relatively small twenty years ago, is now enormously diminished.

"The application of electricity, as motor power, to the excavating dredge, a method I employed for the first time on the river Esla in Spain in 1895, will further considerably reduce it.

"If the dumping-place is on an average not more than about ten miles away it will be possible to dredge, to transport, and to dump, thanks to electricity, at prices extraordinarily reduced, either the loose earth, or the rock once disintegrated and transformed into dredgeable matter.[1]

"Two questions, therefore, must be examined: first, the transformation of the rock into dredgeable matter; and secondly, the discovery in the centre of the Isthmus, of a convenient dump for the mass of ground excavated.

"With regard to the first question—that of the transformation of rock into dredgeable matter—I gave the proper solution a little more than twenty years ago, by an appropriate disposition of explosions. Since then, by following out the same idea of removing submerged rock by dredging after its disintegration, the latter operation by mechanical concussion, has been developed. This method,

[1] The Dutch delegate, M. Welcker, was to confirm my statement as to the cheapness of dredge excavation even by employing steam as motor power. He showed the cost to be 3¾ cents per cubic yard in Holland—in loose ground, of course.

employed on the Suez Canal, several years after my pioneer works of 1885, has made since enormous progress.

"To-day, we have the choice between the two methods. Both will give in the so-called rocks of the Isthmus, of which ninety per cent. scarcely deserve such a name, the most astonishing results as regard to economy. We are, thanks to them and to the progress of dredging, very much below the cost of open-air excavation.

"But we must also solve the second question; we must be able to dispose easily of the material once dredged and deposited in the barges.

"Here is the solution:

"Build a dam at the place where the old Panama Company had projected it for the realisation of the *Ferdinand de Lesseps Idea*, before the Chagres enters into the Canal line, at the spot called Gamboa. Erect this dam, which on the 14th of February last, three of your members—MM. Davis, Burr, and Parsons—again recommended, when they proposed it with a view to carrying out the *Ferdinand de Lesseps Idea*.

"The old company fixed—as did MM. Davis, Burr, and Parsons, twenty-two years later—the maximum altitude of the water behind the dam at 200 ft. above the sea.

"The recent soundings, as well as the earlier ones, demonstrate that the masses of the two solid rocky hills, which on either side of the river, form, before its entrance into the Canal line, the two elevations of a gigantic portico, unite under the bed of the river 40 ft. below, that is at sea level. It only remains to erect a dam of steel concrete to close the outlet of the waters in an indestructible manner.

"Behind the dam will be formed an immense lake of 130,000,000 square yards surface. The volume of water it will contain will exceed 2,600,000,000 cubic yards.

"The formation of this lake was conceived exclusively owing to the necessity of controlling the Chagres floods. We must give it three new and essential parts to play.

"It should become the general basin for dumping the excavated material. To that end it suffices to construct a double flight of locks between the summit level of the Canal and the lake, in the rocky hill which separates the lake from the summit level.

"The capacity of the lake for receiving the spoils will be more than four times greater than necessary, as the volume of material to be dumped there does not amount to 600,000,000 cubic yards.

"The barges loaded with the spoils will be able to enter the lake and automatically unload their contents into its depths by opening their bottom doors. They will have a water depth near the dam of more than 150 ft.

" Such will be the first new rôle of the lake.

" But the water used for the lockages of the barges will not be lost, as it will fall into the summit level of the Canal, which will need it for the lockages of the interoceanic navigation.

" This will be the second new rôle of the lake.

" It will also have a third new and important rôle to play.

" The surplus of the Chagres waters, passing over the dam, will be collected, and the power resulting from their fall will be used under the electrical form : first, to raise the vertical rams with a pointed head which are to break the rock; secondly, to keep in motion the machinery of the dredges, which will excavate the ground, whether naturally loose, or artificially rendered so by the action of the rams; thirdly, to move the barges along the summit level from the dredges to the foot of the flight of locks leading to the lake.

" The terrible enemy of the Canal, the Chagres, once it is muzzled and harnessed, will become the essential organ of the sea-level canal construction.

" The extreme economy and the extreme power which results from these dispositions, permits the problem to be considered quite otherwise than has hitherto been done.

" As it is the water of the Chagres which gratuitously provides us with the road on which the excavating machines are to work;

" As it is the water of the Chagres which furnishes gratuitously the road on which the spoils of the excavation are to be transported;

" As it is the water of the Chagres which furnishes us gratuitously the enormous dump wherein the spoils are to be deposited;

" As it is the water of the Chagres which will, owing to its fall, furnish us gratuitously with the energy which is to animate the rock breakers, the floating excavators and the spoil-carrying barges;

" As Nature, in a word, if wisely consulted, and interpreted, and harnessed, gratuitously and abundantly provides us with all that it costs so many efforts and so much money to produce with locomotives, with trains, with rails, with ties, with fishplates, with clamps, with bolts, with switches, with ballast, with boilers, with steam-engines, with coal, and with tens of thousands of workmen, it is possible to consider the problem in a new light;

" As we have discovered the giant who will accomplish, without salary, what the tens of thousands of dwarfs whom he replaces have so great difficulty in accomplishing,—we can extend the scope of our programme.

" Twenty-six years ago the maximum which could be demanded of these dwarfs was a sea-level canal, 30 ft. deep and 72 ft. wide at the bottom.

" Experience has shown that such a programme was infinitely

beyond the productive power of these dwarfs, even when backed by hundreds of millions of a powerful private company.

"To-day, the maximum which is required of these dwarfs is a canal 35 ft. deep and 150 ft. wide at the bottom. That is the sea-level project submitted to you by the Isthmian Canal Commission.

"Besides the great peril of slides during the excavation made in the dry, as proposed, the least slide, after the opening, will close it. Its tide lock on the Pacific side may also be destroyed in time of war or by an accident.

"This is the best project that can be expected when one has to depend upon dwarfs, but as we now have a giant at our disposal whose work is gratuitous we may call upon him for the final solution.

"Formerly this solution could only have been conceived in a dream, because under the conditions of former days it would have been necessary to wait forty years before opening the Canal to navigation, and the project would have entailed an expense of about nine hundred million dollars for the works alone, which, with the accumulated interest would have made the cost some two billion dollars. Even admitting an enormous reduction, thanks to the sanitation of the Isthmus and to the recent conquests of Medical Science, its cost and the delay to the opening of the Canal would render this plan now entirely chimerical, with the excavation by steam shovels and trains.

"To-day, the Giant which I am introducing to you, guarantees its realisation almost for nothing without postponing for a single hour the opening to traffic, and without disturbing this traffic for an hour during his work.

"On the contrary, it will advance the hour of the passage of the first ship, because it takes for granted a lock canal, which, as it is provisory, will be constructed much more simply and much more quickly than a canal with permanent locks, conceived for eternity.

"This solution of the dream of yesterday, which I present to you in a tangible form, is the *Straits of Panama.* It is the drastic cutting of the Isthmus and the free connection of the waters of the two oceans.

"You will thus have an artery 500 ft. wide at the bottom, 45 ft. deep at low tide, where the floods of the Chagres can be freely admitted.

"It will be an indestructible artery, which neither the hand of Man nor the convulsions nor the reactions of Nature can close.

"To make it a reality it needs three times as much excavating as the sea-level canal submitted to you. This sea-level canal needs two hundred million cubic yards.

"The Straits of Panama requires an excavation of six hundred million cubic yards.

"Therefore begin by making a lock canal. Build it as economically as possible. The one I projected in 1892 may be turned into a reality within four years and with an expense of one hundred million dollars. Then transform it gradually by dredging as thus understood, into a free Straits, 500 ft. wide at the bottom, with a minimum width of 600 ft. at the water line, and a minimum depth of 45 ft. at the lowest stages of the tide.

"Here is the *Key of the Secret of the Straits* in search of which Charles the Fifth sent Hernando Cortes in 1523.

"*Humanity has vainly looked for it during centuries in the Geography of the Isthmus. The Secret lay in its Hydraulics.*

"*For centuries, and even up to the present day, mankind has believed that the Chagres was the terrible enemy of the great undertaking. It was in reality the mysterious enigma which has hitherto baffled human sagacity, but it was also the gigantic workman placed by Providence for the realisation of the 'Straits.'*"

Such was the substance of the ideas I laid down.

In order not to inflict violence on any prejudice I adopted exaggerated unit prices, for the excavation of rock by dredging. I declared that the realisation of the Straits by this method would cost three hundred million dollars. In reality the cost could not be more than two hundred million dollars; say one hundred million dollars for the provisional lock canal and one hundred million dollars for its transformation into the Straits of Panama.

The Spirit of Authority at Salamanca in 1487–1490 and at Washington in 1905–1906

The effect of this sudden revelation of the *Key of the Secret of the Straits,* is one of the most interesting chapters of human psychology.

I was squarely attacking three well-established dogmas.

Free Straits between the two oceans had always been declared a chimera. I proved it to be easily and economically realisable.

The Chagres had always been declared the greatest and almost insurmountable obstacle. I proved it to be providentially placed there for the execution of the "Straits."

As recently as four years before, by the Isthmian Canal Commission, the excavation of rock under water was still declared to be five or six times more costly than excavation in the open air. I proved such excavations to be below the cost in open air for ordinary rock, and very much below for soft rock, which forms almost the totality of the excavation of the Straits.

Could this terrible and impudent indictment and repudiation of the principles hitherto governing the matter be ratified by an assembly

composed of the delegates of five Governments of the World convened to decide on this grave question ?

The Spirit of Authority was there in 1905–6, face to face with the Experimental Spirit, as it had been face to face at Salamanca in 1487–90.

It was still the same question which was at issue : the westward highway from Europe to Asia.

The centuries pass, human frailty remains.

The Consulting Board of 1905, at an epoch which we have the illusion of believing to be so profoundly scientific, was just as positive in the defence of technical dogmas as were the astronomers, the mathematicians, and the clergy of the fifteenth century in the defence of the geographical dogmas.

Liebig, according to Larousse, said about the sentence of Salamanca pronounced by the most learned professors of geography, of astronomy, of mathematics, and by the most eminent dignitaries of the Church : " In those days, mathematical proofs did not hold when they seemed contrary to certain sentences of the Scriptures or this or that interpretation of the Fathers. ' How can the earth be round,' they said, ' when it can be read in the Psalms that the sky is stretched like a skin ? ' . . . What conceit for a man of the people to think of making such a great discovery when the shape of the ' world ' has been the object of the meditations of so many philosophers, of so many learned men, when so many bold navigators have sailed over it for thousands of years."

Alas ! if Liebig were living to-day he would be forced to acknowledge that it was not only in the Middle Ages that mathematical proofs lost their power of demonstration when confronted by sentences of the Scriptures or by interpretations of the Fathers of the Church. They are just as impotent to-day in presence of other dogmas which have not even, as have the others, the excuse of antiquity and of universal belief.

It is neither remoteness of origin nor difference of intellectual culture which causes these strange denials of Scientific Justice.

The man who spoke before the International Consulting Board of 1905–6 was the peer of those who sat on that Board, both as regards professional origin and public services rendered.

No, the cause of the error of the Consulting Board at Washington, like that of the College of Salamanca, was once again the Dogmatic Spirit, that Spirit of Authority, which crushes all new conceptions when they lift the veil of undiscovered horizons of thought, the Spirit against which Descartes unfurled the Standard of Revolt, the Standard of Scientific Doubt.

In order to save the dogma by which it had been declared impossible to open a free straits between the oceans, and the dogma by which it

had been declared impossible to regard the Chagres as other than an irreconcilable enemy, what did the International Consulting Board do ?

They declared chimerical the mathematical proofs which the Experience of Facts warranted my laying before them as to the reduced cost of the removal of submerged rock by dredging after adequate rupture.

These mathematical proofs were those I have cited and which resulted from the works carried out at Panama in 1885 and afterwards. They were those published in the recent reports of the International Technical Board of the Suez Canal. They were also those that M. Quellennec had likewise himself furnished as to the works executed at Suez under his supervision in the years immediately preceding 1905.

The "Startling" Price of Rock-breaking adopted by the Board

M. Quellennec established a note, probably for the enlightenment of the Consulting Board, which gave the cost at Suez of the transformation of rock into dredgeable matter by mechanical concussion.

Once, in October 1905, I went to pay him a visit at Washington. We had a talk on the subject. As there was no mystery about it, the figures being published in the public documents of the Suez Canal Company, he gave me a copy of the note he had prepared.

It established that the average cost of rock-breaking on the Suez Canal from January 1, 1904, to June 30, 1905, had been twenty-five cents per cubic yard.

This mathematical proof, which it would have been very easy to corroborate by many other examples independently of the Suez Canal, controverted no dogma of the Scripture.

It had nevertheless the same fate, as similar mathematical proofs at Salamanca, because it dealt a blow at a dogma of technical order.

As this mathematical proof was an obstacle to the maintenance of the technical dogma, the Consulting Board simply overlooked it. *Alone among all the documents prepared for the Board for its members, or by the witnesses, M. Quellennec's note summing up the precious experience of the Suez Canal on this capital subject was not reproduced among the appendices of the report. Even its figures were ignored by M. Quellennec simply expressed them verbally.*

No trace can be found of the arguments about the cost of the Suez process, though the process was discussed. (Report, p. 380.)

It may seem incredible; it is, however, a fact.

The Consulting Board, after turning their eyes away from this—for them—inadmissible testimony of Experience, could declare that the

cost of excavation of any class of rock below water was, in their estimation, two dollars and a half a cubic yard.

They estimated at fifteen cents the cost of dredging loose grounds.

The latter price is more than amply sufficient for dredging broken rock with the powerful dredges now used, even if the motor power is steam. It would be reduced to much less than half with dredges driven by electricity costing nothing.

These two figures show that the cost of breaking the rock was estimated by the Board at $2·50 minus $0·15—say, at $2·35 per cubic yard.

It is easy to understand that in order to arrive at such a figure as this it was necessary to eliminate the evidence afforded by the Suez Canal, which showed such a standard price to be about ten times as high as the one obtained in practice.

The incapacity of Mathematical and Experimental Truth to penetrate the minds of men who from other points of view may be considered as eminent, is a curious psychological problem.

This Board contained eminent experts chosen by five Governments for the solution of the greatest technical problem of all times, by the Governments of the United States, of France, of Great Britain, of Germany, and of Holland! Yet these men wilfully closed their eyes to Experimental Truth.

They denied the evidence of facts which were brought before them by two of their peers, one of whom was a member of their Board.

Nor can it be said that these men, so well versed in other departments of their profession, were taken by surprise.

Two of them had signed in 1901 as members of the Isthmian Canal Commission a statement to the effect that the removal of rock under water was worth $4·75 a cubic yard, as we have seen.

In the course of four years, therefore, they had profoundly modified their views and they fixed a price diminishing their first estimate by nearly one-half.

But the new figure was still more unlikely than the first one, if we consider that they had under their eyes the demonstration that the second price was about ten times too high.

It is probable that they were unable to believe in its reality in spite of the testimonies.

They refused to adapt their minds to the new conditions and to believe this astounding change resulting from the progress of industry.

The Spirit of Authority forbade them to admit such a startling revelation from the Facts.

A similar position was that of the British delegate, the eminent chief engineer of the Manchester Ship Canal?

He adopts for Panama this standard price of $2·50 a cubic yard

for the excavation of submerged rock. He had just completed a project for the deepening of the Manchester Ship Canal, entailing the removal of several hundreds of thousands of cubic yards of submerged rock, and had calculated the price for the said excavation as less than $0·50 a cubic yard; that is to say, he had admitted a figure for Manchester less than one-fifth of the one he accepted and signed for Panama. It must be noted that the average so-called rock in the Panama excavation is softer than that of the Manchester Canal, and is therefore cheaper to break; a great part of it is even dredgeable direct, by means of our powerful modern dredges, without mechanical or other disintegration!

These singular facts are the consequence of the almost fanatical frame of minds of men when they are struggling for a preconceived idea.

A section of the Consulting Board was dominated by the *Ferdinand de Lesseps Idea*; another section was dominated by the *Godin de Lépinay Idea*. Any means seemed to both parties warranted for bringing their thesis to victory, and for casting a veil over the light of another conception that might thwart the realisation of their own pet conception.

The establishment of the extraordinary price of $2·50 per cubic yard was sufficient for both parties to declare the idea of the transformation, the *Bunau-Varilla Idea*, to be a ridiculously costly and fantastic one. This made it possible to treat the conception of the "Straits" as an amusing conception, but as a mere chimera.

The two fanatical parties united against the common enemy, the *Bunau-Varilla Idea*.

However, they could not possibly deny, after the demonstration I had made before them, that the transformation was possible without interrupting navigation.

They declared it realisable, but, thanks to the fictitious price of $2·50, they also declared it unrealisable, from the point of view of the expense. As to the length of time necessary they evaded giving an opinion. Inflated epithets as to the difficulty (which existed only in the Board's imagination) were substituted for a clear and precise figure which it would have been easy to give.

M. Quellennec alone protested against these conclusions. He declared that the transformation would be made at cost lower than estimated, and would present not great difficulties if the alteration in the design of the locks (which I had devised and recommended for the transformation) were carried out during the construction.

The protest was firm, but it was not made conspicuous by its author. It freed M. Quellennec from all responsibility in sharing the error of the other engineers, but it did not expose the responsibility they assumed in committing this error.

Recollection of the Great Services of Morison

If the eminent chief engineer of the Suez Canal had possessed the aggressiveness and the combativeness of George Morison; if his protest had not simply been inserted in the minutes of the proceedings where nobody discovered it; if he had made a minority report as George Morison did once when the Isthmian Canal Commission wanted to have done with Panama for good, the battle would have taken quite another turn.

This example redoubles my gratitude to George Morison.

In the Isthmian Canal Commission of 1899, it was his iron will, based on Scientific Truth, which was the unconquerable obstacle on which was shattered the dogma of Nicaragua to which the whole of the Commission, himself included, was at the outset devoted.

If he had not been a member of the first commission called upon to examine Panama, matters might have taken the same turn as in the International Board of 1905–6.

Experimental Truth would have perished under the fanaticism of Dogma. Panama would to-day be forgotten. It would be held as one of the most shameful Errors of Man instead of radiating as one of the most brilliant manifestations of human genius. It would have remained a blot on the French name instead of being one of its glories.

Fortunately the error caused in 1906 by the Spirit of Dogmatism will not have entailed incurable consequences. It will have brought on the United States an unnecessary expense of two hundred million dollars and an unnecessary delay of four years. It will have exposed the first lock canal during its life, as we shall see, to risks which ought not to have been tolerated for a moment.

But it has not been able, in spite of the efforts displayed, to kill the idea of the "Straits," nor to wipe out the means I gave of carrying it out. This idea has already triumphed in law, as I shall relate later on, and it will soon triumph in fact.

CHAPTER III

THE CASTIGATION BY FACTS OF THE UNJUST CONDEMNATION OF THE STRAITS OF PANAMA BY THE INTERNATIONAL CONSULTING BOARD

THE ritual crimes committed by the Dogmatic Spirit, the Spirit of Authority, find their castigation in the impartial testimony of Facts.

It has been justly said that when you try to bury Truth it explodes.

PUBLIC CONTRADICTIONS OF THE "STARTLING" PRICE OF THE BOARD

The denial of scientific justice, which Truth received at the hands of the Consulting Board, is condensed in the establishment of the unit price of $2·50 for the removal under water of soft hard or extra hard rock, that is of $2·35 for the breaking of rock so as to render it dredgeable (the proportion in Panama being 90% soft rock and 10% hard or extra hard rock).

To characterise this denial of justice it suffices, therefore, to review the successive facts which have demonstrated the fictitious and absurdly exaggerated nature of this unit price.

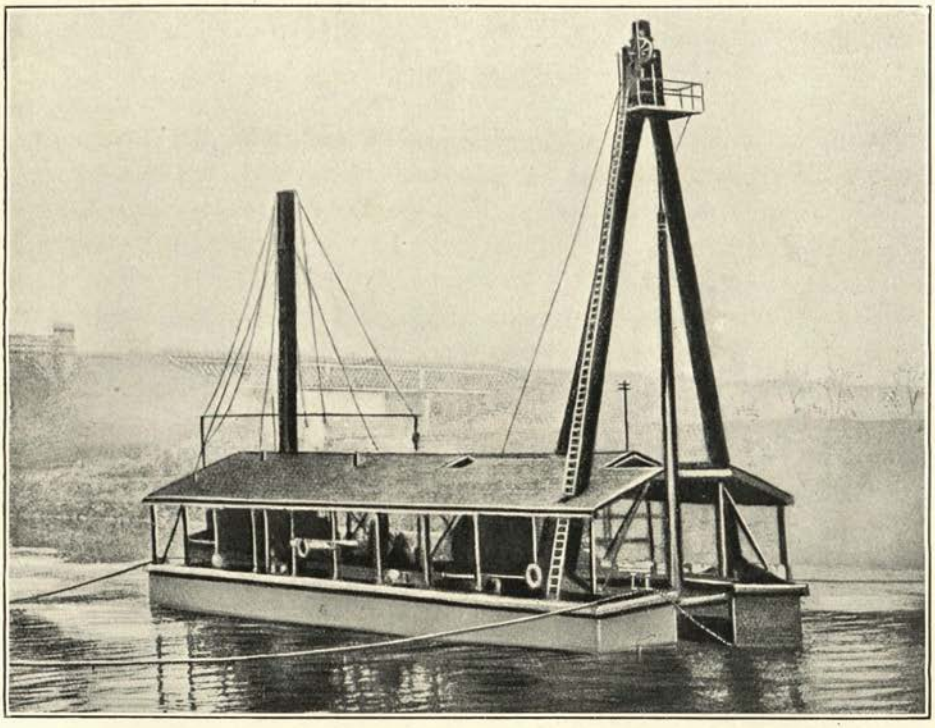
Thus will be broken and annulled the verdict of the Consulting Board on the conception of the "Straits of Panama" and on the practical means of carrying it out.

Other facts also will help to materialise the errors of the Majority and of the Minority of the Consulting Board in adopting respectively the *Ferdinand de Lesseps Idea* and the *Godin de Lépinay Idea.*

In 1907 the London Royal Society of Arts invited me to expound the technical problem of Panama. This ancient and illustrious Society, though its name may be misleading, is almost exclusively devoted to Applied Sciences.

The meeting was presided over by Sir John Wolfe Barry. The Tower Bridge, the latest of the London bridges, is due to this eminent engineer. This and other great works have made him the most celebrated English engineer of his day.

He did not hesitate, in the verbal commentary he made on my lecture, to declare the price of $2·50, adopted for the excavation of



THE MECHANICAL ROCK-BREAKER WORKING IN THE MANCHESTER SHIP CANAL IN 1907

This apparatus was designed in 1886 by Mr. Lobnitz, of Renfrew, Scotland, in order to use, for the deepening of the Suez Canal, the method of rock-dredging initiated in 1885 at Panama, but without using explosives which the Suez Company desired to avoid in order to eliminate any danger to passing ships.

It consists now of a soft steel ram weighing from 12 to 20 tons with a removable point of hard steel. It is lifted by a winch 240 times an hour and falls about 10 ft. on the rock which it disintegrates by concussion. This apparatus masters the hardest rock known, the number of blows depending, as is natural, on the hardness of the rock.

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submerged rock, to be "startling" when compared with the practical prices obtained on the Suez and Manchester Canals.

Such an appreciation emanating from such an authority made a sensation in the British scientific world. Its consequence was that at the Engineering Conference of the Institution of Civil Engineers of June 1907, the question of the removal of rock under water was put on the programme. This Society, though I am not one of its members, did me the honour of inviting me to take part in the discussion.

M. Quellennec, then absent from Europe, sent a note on the question. It reproduced the figures he certainly had submitted in October 1905 to the Consulting Board, and which had been omitted from their report. They thus obtained for the first time the light of scientific publicity.

The cost of breaking a cubic yard of rock ranging from very hard to soft rock on the Suez Canal was shown to be $0·25 a cubic yard (after deducting the time lost for passages of ships).

A similar report from Mr. Sandeman, chief engineer of the harbour of Blythe, gave approximately the same result.

Finally, Mr. Hunter, in a verbal report, stated that on the Manchester Ship Canal the effective cost of breaking 280,000 cubic yards of rock was just a little below $0·12 per cubic yard.

At three different points of the earth it had been officially certified, at the meeting of June 20, 1907, *that the price adopted by the Consulting Board in January* 1906*; say* $2·35 *per cubic yard for breaking the rock was respectively nine and a half times too high at Suez and at Blythe,* and *nineteen times too high at Manchester. These statements of facts were made on the basis of works executed by the methods, and with the machines, I had recommended to the Consulting Board in September* 1905.

President Taft and Colonel Goethals pronounce Oracles

But the facts were to pass a still more decisive sentence upon the very works of the Panama Canal.

Some months after the Engineering Conference of the Institution of Civil Engineers in London, and very likely owing to the echo of the figures I have just mentioned, the American Government purchased a rock-breaking apparatus similar to those of Suez, Blythe, Manchester, and of many other places where extremely hard as well as soft rocks had been broken and thus made dredgeable.

It might have been properly sent to Colon on the Atlantic, where the machine would have worked in water with constant level and in soft rock. The conditions of the works would have been similar to the average ones met in the excavation of the "Straits," during the transformation from the lock form to the sea-level form.

It was sent to Panama instead. There the constant variation of the level of the water due to the tides handicapped the work. On the other hand on that side are found the hardest rocks in the Isthmus, rocks of an exceptional and abnormal hardness compared with the general type found on the line.

It may seem improbable, but it is nevertheless certain, that the American authorities expected absolute failure of the rock-breaking machine.

This is established beyond doubt by two documents emanating from the two highest personalities entitled to speak on the subject: the chairman of the Isthmian Canal Commission, chief engineer of the Canal, Colonel Goethals, and the President of the United States, Mr. Taft himself.

Here is an extract of a paper read by Colonel Goethals on the 16th of March, 1909, before the Manufacturers' Association at Chicago. Speaking of these rock-breaking machines, one of which had been erected, as I said, on the Pacific side, the chief engineer of the Canal expressed himself thus:

"The variation in the character of the rock on the Isthmus from soft argillaceous sandstone to *hard trap* are such as *to make the use of such devices very problematical. . . . Experiments are now being made on the Isthmus* with one of these rock-crushing devices, *but thus far the results are not promising*" (*Canal Record*, March 31, 1909).

A little later Mr. Taft spoke on this subject in an article published over his signature in the May number of *McClure's Magazine* the same year, when (since the fourth of the preceding month of March) he had assumed his high office of President of the United States.

Here is an extract of the article referring to the rock-breaking machine, the so-called Lobnitz machine:

"The Lobnitz method of excavating rock under water is on trial to-day on the Pacific side of the Isthmus of Panama, and *the result of the work there confirms the judgment of practical engineers elsewhere that the machine will work in comparatively soft rock with thin laminations, but that it will not work in hard rock or in rock in which the strata are widely separated*, of which there is much to be excavated in constructing the Panama Canal."

The rock-breaking machine, after successfully working in the Iron Gates on the Danube, at Brest, in the hardest rocks of the planet, was thus, before being put in service at Panama, anathematised and declared, by the President of the United States himself, to be useless in hard rock, or even in soft rock, if not laminated in thin strata.

Its success was declared very problematical by Colonel Goethals

himself; it was, therefore, thought to be illusory by the highest technical authority on the Canal.

It must be acknowledged that the system could not very well enter the phase of activity under the required conditions of impartiality and lack of prejudices.

It must be acknowledged also that if the oracles fallen from such high personalities had been confirmed by Facts, publicity would not have possessed blatant instruments enough to proclaim their wisdom and foresight, nor strength enough to sound the failure of the apparently doomed apparatus.

It would have been the triumph of the dogma of the Consulting Board, which had been appropriated to themselves by President Taft and Colonel Goethals.

The *Canal Record*, the official journal of the Isthmian Canal Commission, strange to say, never spoke of these first experiments before real work which, according to both President Taft and Colonel Goethals, had been so discouraging.

Facts overthrow the Oracles of President Taft and Colonel Goethals

At last, on August 25, 1909, the *Canal Record* announced that the rock-breaking machine had begun its work in *hard trap* on Saturday, the 21st of August preceding.

On September 1 the *Canal Record* further said:

"Complete detailed records are being kept of the work done and the results achieved, and will be published when completed."

It was an exceptional opportunity, it must be admitted, to confirm the previsions both of the President of the United States and of the Chairman, chief engineer of the Isthmian Canal Commission, and also to verify the wisdom of the decision of the Consulting Board as to the cost of rock-breaking at Panama.

The *Canal Record* entirely forgot what it had promised, and never spoke of the work, nor of the result of the work in this *hard trap devoid of thin laminations* where President Taft had solemnly announced it would not work, because of the hardness and because of the lack of thin laminations.

Nobody will suspect, I suppose, that such silence was observed in order not to hurt the modesty of President Taft or of Colonel Goethals. Nobody will suspect that it was due to the desire of concealing a failure which had been foretold, and publicly announced, by the two supreme authorities of the Republic and of the Canal.

No, the *Canal Record* did not keep its word, because, if it had done

so, it would have been obliged to say that the results had been exactly the contrary of what had been announced as highly probable by Colonel Goethals and as certain by President Taft.

Neither the *Canal Record* nor the yearly reports to the Secretary of War published up to the day when this was written in the beginning of the autumn of 1912 ever gave the number of cubic yards broken in a given month nor the unit price of the work.

But the machine has worked. It has left traces of its activity on the ground and consequently in the statistics published by the reports. The figures which for a layman remain concealed and buried, could be extracted from the statistics of the official reports as an unknown quantity can be extracted from an equation. I am going to give them.

This machine, which these two high authorities had announced would *fail to attack the hard trap*, broke and rendered dredgeable, in spite of the difficulties due to a water level constantly varying, a mass of hard rock, the hardest on the Isthmus, amounting to 2514 cubic yards, during the first month of its work. The cost price was $0·58.

This was done with a gang of seven men, working ten hours a day.

Therefore, in spite of the very unfavourable conditions due to the tides (though the rock was of such a hardness as perhaps cannot be paralleled in more than two or three per cent. of the rock throughout the whole excavation), the rock-breaking machine worked regularly, as it had done everywhere else—at the Iron Gates, at Brest, at Philippeville, etc.

The cost price for this extra hard rock was one-fourth of the amount estimated for the average of rock to be broken, which, I repeat, has an extreme softness as a general character.

But in less hard rock, though still under the difficulty due to the tides in the month of April 1911, and also with only a gang of seven men working ten hours per day, the rock-breaker prepared 7275 cubic yards at the cost of $0·19 a cubic yard. It was a cost about one-twelfth of the "startling" price fixed by the Consulting Board in 1906.

The publication of such a statement was indeed impossible.

It would have been as if the *Canal Record* had printed and dispatched to the four quarters of the horizon such words as these :

"The Consulting Board in 1906 erred badly and the United States was utterly misled by it when it rejected the scientific method, which would have led to the ideal solution of the 'Straits of Panama.' It erred in fixing a unit price contrary to the data submitted to the Board, contrary to the results obtained on the Suez Canal, before its deliberation, contrary to the results obtained, after its deliberation, on the Manchester Canal and contrary to the final verifications on the Panama Canal itself.

"Colonel Goethals erred badly and the United States was utterly misled by him when he stated that the success of the rock-breaking machine was very problematical at Panama.

"President Taft erred badly and the United States was utterly misled by him when he announced that the rock-breaking system was a failure save when the rock was at the same time moderately hard, and separated in thin laminations by Nature."

Such language as this was impossible, and this is why neither the *Canal Record* nor the annual reports on the works have dwelt on these important and decisive results. Reasons of state prevented their publication.

But while the Dogma is for the time being protected against exposure, by the silence of those who might bear witness to the facts, this protection is only momentary.

The "Startling" Price covered up a Truth which is now Obvious

To-day it can be said that if a rock-breaker, consisting of a single ram, has disintegrated, with seven men working ten hours, 7275 cubic yards in a month, it would have dealt with more than 200,000 cubic yards a year, with twenty-one men working eight hours each day.

One hundred and thirty rams working in the central mass in the same rock (the average rock is softer still) would have converted into dredgeable matter some 26,000,000 cubic yards annually.

As there remained about 260,000,000 cubic yards to be excavated in the central mass, in order to open the Straits, the work could be completed, as I have said, in ten years.[1]

This enormous result requires only a few men. To render dredgeable all the rock of the central mass, for the opening of the "Straits," would require but 2100 men daily if steam is employed to generate energy. This figure would be reduced to 1500 men if electrical power is used to raise the ram which by its fall breaks the rock; that is, if the electric winch is employed instead of coal, boiler, and steam-winch.

As to the cost, it would fall, thanks to the gratuitous electricity

[1] Even admitting that the average hardness of rocks in the central mass was equal to that of the extra-hard and soft rock met during the year July 1910 to June 1911 by the rock-breaker near Panama, and that the cost would have been what it in reality was during the said year, that would make twenty-two cents and a half instead of nineteen, and the total yearly work would be 150,000 cubic yards, instead of 200,000. This would require, for the opening of the Straits in ten years, 180 rams in the central mass according to the results obtained during the year 1910–11. It is therefore apparent that the estimate of eighty-three pontoons with three rams each, which I had made before the London Society of Arts in January 1907, has been shown by the works executed at Panama to be not only conservative but altogether ample.

delivered by the falls of the Chagres and to the use of powerful ladder-dredging apparatus, to nine or ten cents per cubic yard for breaking, *plus* four or five cents for dredging and transporting.

Never was there a more luminous or a more striking demonstration made by facts of the error created by a false idea and by a false figure, that of the "startling" price. This book was necessary to raise the veil, and to show how the Spirit of Dogma and the Spirit of Authority are castigated by facts when an attempt is made to stifle the revelation of Experimental Truth.

My Old Method disqualifies also the "Startling" Price

But this formal contradiction to error given by the method of mechanical concussion has been followed by another one. The old method by which I inaugurated in 1885 the victorious fight against submerged rock has also answered the call.

I have said that this old method was sufficient to ensure the execution of the "Straits of Panama," but that the method by concussion was preferable owing to its greater economy when real rock was encountered.[1]

On the Pacific side of the Isthmus my old explosion method was employed simultaneously with the concussion method.

A barge, the *Teredo*, was provided with drills. From July 1910 to June 1911 it rendered dredgeable about 145,000 cubic yards at a cost of about $0·45.

It was about one-fifth of the price determined by the Consulting Board—the "startling" price—though about twice the cost resulting from mechanical breaking.

On the Atlantic side the same thing occurred.

As there was no concussion machine there, recourse was had to the old method, precisely where it was invented and applied in 1885. Major Sibert, who directs these important works, and whose irreproachable attitude in this conflict of ideas has always been that of the knight *sans peur et sans reproche*, gives with his customary scientific loyalty the comparative prices of rock excavated in the wet and in the dry. For the year 1908–9 the excavation of rock under water, including transportation to the dumps, cost $0·63 per cubic yard, that is to say, one-fourth of the "startling" price of the Consulting Board.

If a mechanical rock-breaker had been used, as well as the large

[1] In fact the soft rock, which is a hardened clay, in the central mass, can in most cases be dredged without any preliminary preparation by the powerful dredges of the present day. I said before the Consulting Board in 1905 that I thought a few shocks by blasting would be the rational way to make it entirely and easily dredgeable, mechanical concussion being reserved for the harder part where it is more economical than the explosion method.

powerful dredges of nowadays,[1] instead of our old dredges built a quarter of a century ago, the cost would have fallen to less than twenty-five cents, less than a tenth of the " startling " price of the Consulting Board.

Reassertion of a False Dogma in Face of Contradictory Facts

In this report of 1909 may be found a most extraordinary contradiction. This contradiction is the direct consequence of that imperturbable Spirit of Authority which no experimental fact can shake.

On p. 8 Colonel Goethals examines whether the prism of the Canal shall be excavated below sea level by dredges through the rocky Mindi Hills, or if the dry excavation shall be carried out with the co-operation of pumping.

The eminent chief engineer of the Canal concludes thus :

As the material can be removed more cheaply by the shovels than by dredging, excavation in the dry was continued.

If we turn in the same report to p. 57 we find that excavation in the dry in the Canal prism through the Mindi has cost, earth and rock together, $0·55. But, as I said, Major Sibert gives the unit prices of the wet excavation of earth and rock by the old dredges in the neighbourhood. These prices show that if the dredging had been applied for the excavation of the prism through the Mindi Hills, the cost in the wet would have been about three per cent. lower than the cost in the dry as given by the accounts.

The principle reasserted by Colonel Goethals, as determining the preference, was therefore demonstrated to be false in the very same report. Excavation in the wet was demonstrated to be cheaper even if machines and methods one quarter of a century old are employed for excavation on water and if they have to compete with the newest and most powerful implements for excavation in the dry.

If in both cases the machines and methods had been modern and appropriate, the principle enunciated by Colonel Goethals, as an intangible truth, would have been shown to be false, not for a difference of three per cent. but for a difference of fifty per cent., in favour of wet excavation.

[1] In 1905 I naturally based my figures on the use of the large powerful ladder-dredges now being constructed. The Canal Commission constantly refused to order any but dipper-dredges. The very best ones were proved to be greatly inferior to our old French ladder-dredges of a quarter of a century ago. Finally, however, one of these instruments was ordered in Scotland and arrived in March 1912, at the end of the works. The *Canal Record* seemed to be greatly astonished to see that it could dredge soft rock direct without any preliminary preparation.

Truth proclaimed under the Pressure of Danger

A day, however, was bound to come when in spite of the explicit intention of denying not only the possibility, but also the facility and cheapness, of dredging the Culebra region, danger compelled recognition of the truth so long concealed.

The terrible slides at Culebra, against which I had never ceased to warn the American engineers, began finally to become a grave menace.

Completion at the fixed date appeared to be endangered, and doubts were raised as to the possibility of finishing the cut in the dry.

It was necessary to calm public anxiety. That necessity had this advantage, that it revealed for the first time the truth that had hitherto been concealed.

In the *Canal Record* of May 10, 1911, appeared the following important declaration. Speaking of the masses of rock sliding into the deep cut the official organ of the Isthmian Canal Commission said :

"This amount may be increased, but this causes no apprehension, as, after the locks are completed, it will be possible *to concentrate dredges for removal of the material that remains and which may slide in, enabling the work to proceed much more expeditiously and much more economically.*"

The pressure of danger had evoked this confession. The dredging of the Culebra ground, an operation hitherto declared to be impossible owing to considerations of time and cost, now became the rapid and economical process for completing the cut, if the work could not be finished, on the day announced, by the dry process.

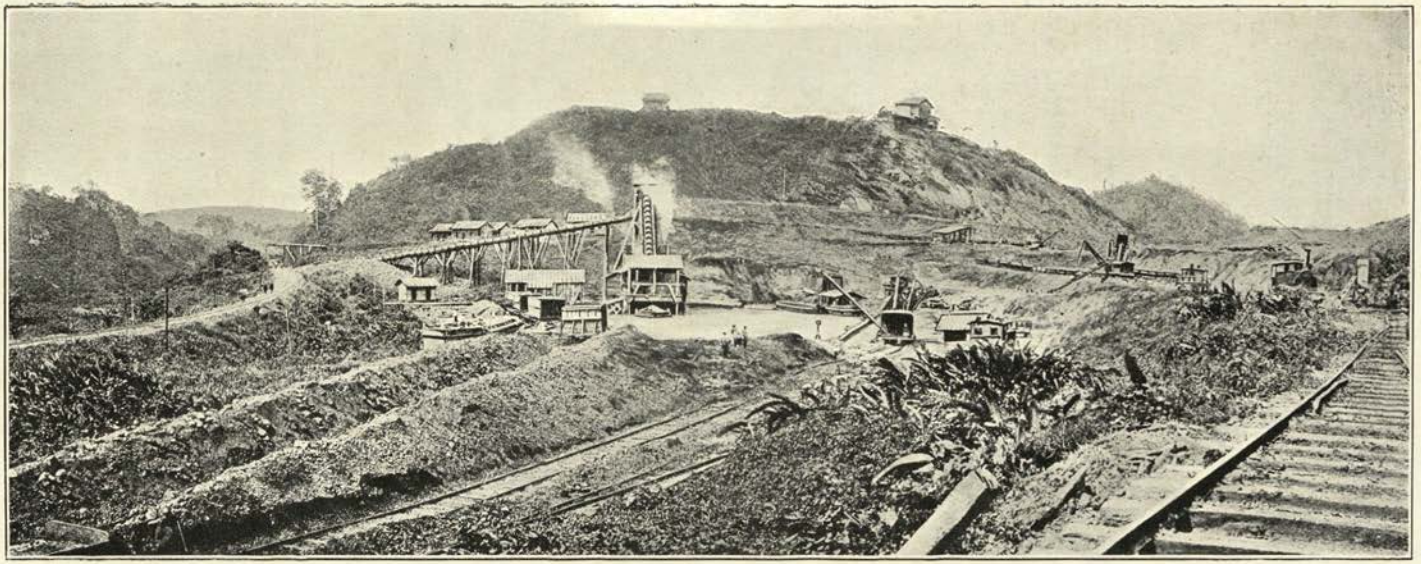
Ingenious Device for avoiding all Discussion as to the Truth

All this succession of facts came to testify as it were against the inadmissible ostracism of which the conception of the "Straits of Panama" was a victim at the hands of the International Consulting Board.

These facts demonstrate that the fantastic unit price (or as it was qualified by Sir John Wolfe Barry, the "startling" price) of $2·50 for the excavation of submerged rock, was merely an insidious instrument of war employed by the Spirit of Authority. It was invented to defeat the ideal solution, namely the "Straits of Panama," by placing in a false light its powerful and economical system of execution, the system of execution which was created for its needs.

These facts likewise stultify the efforts of those people who try to prevent the realisation of this dream of the centuries, the revelation of the "Key of the Secret of the Isthmus."

It is in the United States customary to say : "Oh, the 'Straits of



DREDGING INSTALLATION AT CULEBRA IN 1888 (PACIFIC SIDE)

Dredging plant at work in 1888, at Culebra, in an artificial lagoon created on the slopes of Culebra towards the Pacific, at an approximate altitude of 200 ft. above sea level, and about 60 ft. above the Rio Grande, which flows some hundred yards distant.

When in 1888 I applied the dredging system to the excavation of the Culebra Cut I could not dispose of the spoils as easily as would be the case in the project of the Straits of Panama, that is by dumping them into a lake. They had then to be dredged from the scows by a fixed elevator and either dumped on the slopes of the Rio Grande, which was convenient for the very beginning only, or loaded on trains and transported by rail to the dumps.

The picture is proof that the dredging of the Culebra Cut, which the Consulting Board declared in 1906 to be unrealizable on account of its cost, was already as far back as 1888 substituted for excavation in the dry on account of its greater economy and greater power. It was already so then, when all the advantages of the method as regards transporting and dumping could not be yet employed.

The water was brought from the Rio Grande reservoir (shown in picture facing p. 468), by the pipe which may be distinguished at the foot of the house to the left.

Panama,' that is no doubt the perfect solution. But unhappily it would entail such an exorbitant expense both of time and money before permitting the establishment of any communication between the oceans, that it must be looked upon as a chimera ! "

The facts which have been exposed seem to make it impossible for any competent scientific authority publicly to repeat such a misleading fiction. It is, indeed, extraordinary to see it told by men who deserve to be regarded as eminent from so many points of view, men of obvious sincerity, such as Mr. Alfred Noble or Colonel Goethals.

In a speech delivered before the Stevens Institute of Technology in February, 1909, Mr. Alfred Noble said :

" Such a broad channel at sea level as the one advocated by the eloquent and ingenious M. Bunau-Varilla, and by him appropriately designated as the 'Strait of Panama,' would afford a quicker and safer navigation than any other lock or summit-level canal. But on account of its enormous cost, and of the prolonged period required for completion, the ' Strait of Panama ' must long remain a work of the imagination rather than of practical realisation."

In his lecture in Chicago on the 16th of March, 1909, Colonel Goethals said :

" The ' ideal ' sea-level canal, the ' Straits of Panama,' recently proposed, is not based upon any investigation of the work to be done, and cannot, in view of the approximate estimate of the cost of our own sea-level canal, which is about one-third the size of the ' ideal ' plan, be given serious consideration."

It is clear that both these eminent engineers are discussing the " Straits of Panama " without making the slightest allusion to its process of construction by gradual transformation of the lock canal, through the breaking of the rock and its dredging, and of the simultaneous lowering of the bottom and of the water level in the summit section.

They discuss it as if I had committed the improbable folly of proposing excavation in the dry of a sea-level canal of a width three times as large as the one projected by the majority of the Board.

They discuss it as if I had considered a foolish dimension for the *Ferdinand de Lesseps Idea*, and proportionately increased the expenditure of time and money, which I judged already to be excessive, even with the restricted dimensions which had always to be accepted for this Idea.

It may seem incredible that such methods of discussion should be employed by men of high intellectual capacity.

But on the question of the " Straits " proper, as on the question of the cost of excavation of submerged rock, which is the essential basis of its realisation, any criticism offered by the enemies of the " Straits

of Panama," must give way before the powerful army of facts confronting it.

The blindfolding Spirit of Authority has, therefore, at its disposal only two weapons, silence or confusion with a totally different idea.

It is necessary, however, to reopen the discussion on a precise and scientific basis, for the obligation of realising the " Straits," soon after the opening of the lock canal, will come rapidly to the fore under the treble pressure: first, of the enormous traffic,—second, of the scarcity of water,—third, of the constant danger of destruction of the Canal as it is now constructed.

But in reopening it by confronting opinions with facts I must elucidate a point which may mislead certain readers.

In the ordinary questions of life such facts as those I have related and shall relate might raise a suspicion of concealed intent to cover errors and prevent their discovery by keeping silent on the revelations of facts, or by consciously confusing separate and distinct ideas in the discussion.

Nothing would be more unjust than to suppose such a thing.

When the Consulting Board fixed the " startling price " there was not one among its members who did not believe sincerely and in perfect good faith, though most erroneously, in its reality.

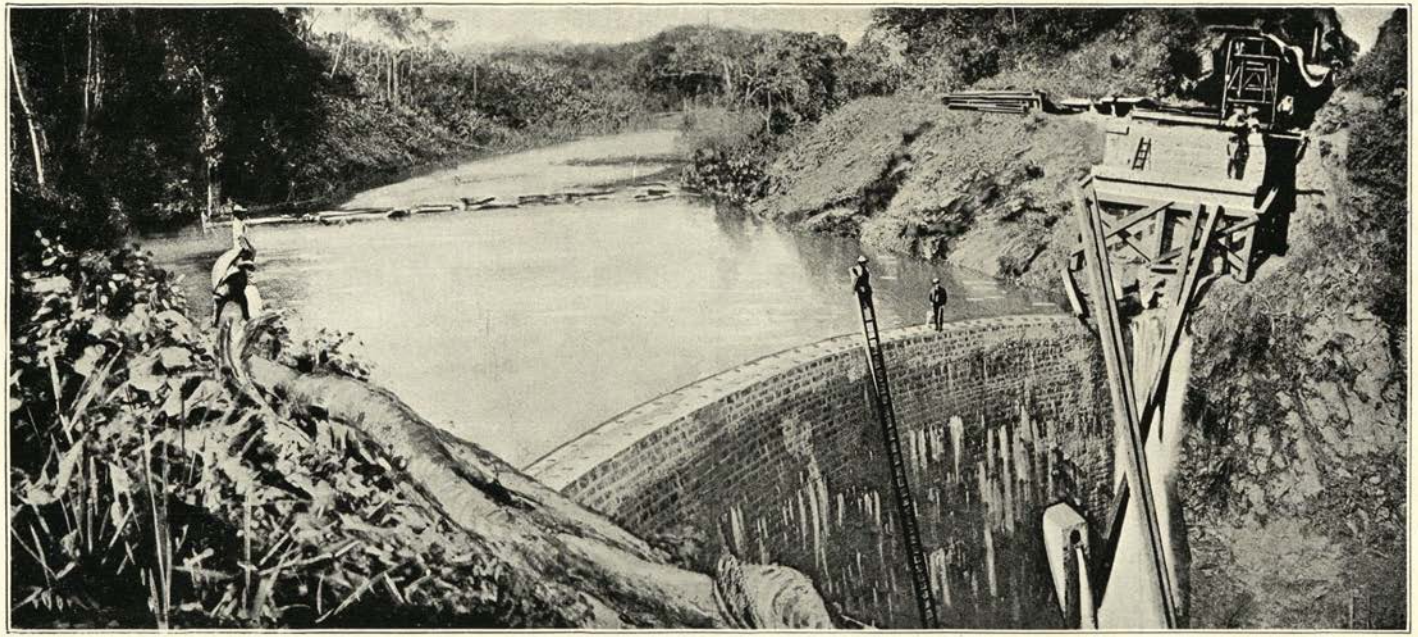
The Chief Engineer of the Manchester Canal when adopting this " startling price," five times higher than the one he himself had fixed for Manchester, and had himself mentioned in the Appendix of the Report of the Board, must have been actuated by an erroneous appreciation of the hardness of the Culebra rock or some other fair, but mistaken, principle.

It is always the *Authority of Opinions* which must be held as responsible for these strange facts. It leads man's mind to a complete miscomprehension of the new solution of a problem. It makes him regard it as a foolish and hateful production of imagination. It makes him think that his duty is not to believe in facts supporting it, that his duty is to overlook and neglect them.

Sometimes a crisis takes place as in the question of the Culebra slides and the consequent recognition of the power and cheapness of dredging the Culebra cut. A part of the bandage over man's eyes is torn apart. He accepts reluctantly to admit the truth which he held hitherto for error.

In a word the imprint of the *Spirit of Authority* falsifies the views and judgment of man while his sense of duty and his conscience remain intact.

Whatever he does in the defence of the false idea inspired in him by the false dogma, he does it in sincerely fulfilling his duty to the best of his ability.



THE RIO GRANDE DAM (IN NOVEMBER 1888)

This dam, erected across the Rio Grande at a distance of three-quarters of a mile from Culebra, raised the level of the water 20 ft. above the level of the lagoon artificially made on the Pacific slope of the Culebra summit.

A syphon connected the foot of the dam with the lagoon, which can be seen on the preceding plate (facing p. 466).

I had made this dam very light in 1888. It has never shown any sign of weakness, and is now used to form a reservoir for the town of Panama. It stands about 47 ft. high from its foundations.

This dam is shown in course of construction on plate facing p. 81.

CHAPTER IV

THE CASTIGATION BY FACTS OF THE ADOPTION OF IRRATIONAL PROJECTS BY THE MAJORITY AND MINORITY OF THE CONSULTING BOARD

AFTER having united against the common enemy and destroyed, as I have related, the *Bunau-Varilla Idea* and its natural consequence, the "Straits of Panama," the Consulting Board became subdivided into two reciprocally hostile groups, each defending a different dogma.

The first group, that of the partisans of the *Ferdinand de Lesseps Idea*, was composed of all the engineers delegated by European Governments, MM. Guerard, Inspecteur-Général des Ponts et Chaussées; Hunter, chief engineer of the Manchester Ship Canal; Tincauzer, Baurath of Royal Government of Prussia; Welcker, director of the Rijks Waterstaat, the respective representatives of France, Great Britain, Germany, and Holland; and also of three American engineers, General Davis, Mr. William Barclay Parsons, chief engineer of the Subway, New York, and Mr. William H. Burr, Professor of Technology at the University of Colombia, the three latter appointed by the United States.

M. Quellennec rallied also to this group, the Majority group, after having, as I have said, inserted his protest.

The second group, that of the partisans of the *Godin de Lépinay Idea*, was composed of Messrs. Alfred Noble, chief engineer East River Division Pennsylvania Railroad; Frederic P. Stearns, chief engineer Water and Sewerage Board of Boston; Brigadier-General Henry L. Abbott, U.S.A. Retired; Joseph Ripley, general superintendent St. Mary's Falls Canal; and Isham Randolph, chief engineer Sanitary District, Chicago.

All of the members of the second group, the Minority group, were the delegates of the United States.

THE GREAT ERROR OF THE MAJORITY OF THE CONSULTING BOARD

Nature has made unstable the ground of the Culebra Cut. The great error of M. de Lesseps's first technical advisers was to think it stable.

It is not out of place to recall the words already cited at the beginning of this book, which were pronounced by M. Couvreux at Gand in June 1880, when he recounted how he had determined the slopes of the great cut :

" In order to rally all opinions we have been obliged to admit slopes of four vertically in one horizontally."

Such an error may be condoned at the outset of such a work; but it is inexcusable after so many years—of struggles, of experiment, of disappointments—had taught the truth and, under a thousand forms, emphasised the danger.

Yet in January 1906 we see the International Consulting Board restating almost textually, over the signature of the most eminent engineers of the world, the same illusory words.

They say that :

" Large portions of the side slopes might be as steep as *four vertical in one horizontal and a very small portion, if any, of them will be less steep than three vertical on two horizontal.*"

Is not this assertion just as " startling " as the determination of the price of excavation of rock under water by which the Board was enabled to stifle the rational construction of the free " Straits."

This great difficulty of the stability of the side slopes of the Culebra Cut exists only because lack of time and resources compels a reduction in the quantity of excavation by adopting steep side slopes.

It is entirely eliminated if you can dispose of the time necessary, and if you can employ the economical and powerful method of dredging. I have given the solution and it was declared fantastic, until the probable impossibility of opening the Canal in the dry, owing to the slides in the Culebra Cut, forced public recognition of its economy and its power.

It suffices to increase enormously the width of the cut at the top and to give a very soft average inclination to the side slopes, to satisfy the necessary conditions of equilibrium.

Delaying for one, two, or three years, if necessary, the hour of the completion of the " Straits," in order to take all the measures of precaution, does not matter if during that time the international navigation goes on freely undisturbed.

Thus the execution of the Straits, or even of a narrow sea-level canal, cannot be rationally conceived save by the method of the gradual transformation of a preliminary lock canal.

It is for this reason that the direct construction was bound to be formally excluded.

It is for this reason that the first preliminary lock canal ought not to have been built with a summit level bottom through the Culebra

Cut lower than about 100 ft. above the sea. It would have even been better to adopt a higher altitude, such as 140.

It was the limit of security for the first period corresponding to the dry excavation. After the opening of this lock canal it would first have been very much enlarged. Then the bottom level and the water level of the summit section would have been simultaneously and gradually lowered, until the locks had been successfully suppressed and the level of the water had reached the level of the seas.

In this way no slides of any consequence would have been heard of. This grave element of danger has been generated by adherence to technical dogmas quite inapplicable to the question, and by the blind rejection of the truth proved by experience.

I never ceased for a moment to warn the American Government and the engineers against the terrible obstacle of the instability of the slopes of the Culebra Cut if the necessary precautions were not taken.

This was the very object of my visit to Mr. Roosevelt in March 1905, when he was on the point of adopting in its initial form the *Ferdinand de Lesseps Idea*, on the counsel of his technical advisers.

In the note I wrote for him, and which I gave to the members of the International Consulting Board in September 1905, I said :

"The question of the stability of the slopes of the great Culebra Cut will be of paramount importance. Whatever process of excavation will be adopted, shovels on rails or dredgers on water, no slice of ground will be attacked before its nature and stability be recognised by open-air wells through the said slice, along the foot-line of the lateral slopes every hundred feet.

"If the nature of the ground so recognised makes it necessary *to soften the slopes, or to increase the width, or to make any kinds of works to ensure the stability of the cut, that will mean* simply delay in the completion of the transformation, but no harm to *international navigation.*"

The Consulting Board answered haughtily that—

"Inasmuch as by far the greatest part of the under-water excavation in his (M. Bunau-Varilla's) process of transformation would be made *in material classed as rock* large portions of the side slopes might be as steep as *four vertical on one horizontal* and a *very small portion, if any, of them will be less steep than three vertical on two horizontal.*"

In consequence of this superb assurance the Majority of the Consulting Board decided to dig in the dry down to 40 ft. *below* sea level, that is 140 ft. below the altitude I had fixed as the limit of security for such excavation.

The Minority of the Board proposed, and the United States have accepted, a cut much less deep, a cut the bottom of which is 40 ft. *above* sea level, therefore 80 ft. less deep than that of the Majority, though still 60 ft. deeper than the limit of security I had indicated.

It must be said that if the Minority did not go as deep as the Majority it was not on account of the danger of slides. They refused to see this danger just as the others had refused to admit it. They adopted a cut less deep because it made the task less great, and it took less time to open the passage to the first ship.

Both the Majority and the Minority of the Consulting Board thought that the ground would remain stable with steep side slopes.

But Nature pays no heed to the fragile decrees of human presumption and ignorance. The Culebra grounds have not been deterred from sliding *because the Doctors had classed them as rock* in the name of five Governments who had delegated them to pass judgment on the question.

We shall see later on that as soon as the limit of security, 100 ft. above sea level, was passed, Nature reacted as I had foreseen.

By the enormous slides which took place and are still taking place, Nature said to the Minority :

" You have gone much too low for your first cut made in the dry. You went 60 ft. too low, 60 ft. lower than the limit beyond which you were warned not to trespass."

Nature said at the same time to the Majority :

" In recommending again the *Ferdinand de Lesseps Idea*, which he himself had abandoned, you assumed the risk of engaging the whole enterprise in a terrible difficulty. You have decided on a cut 80 ft. deeper than that of the Minority. It is almost desperate to dream of concluding the latter cut in the dry because it is 60 ft. deeper than the limit of security. What would have become of your cut, which was much deeper still ? "

Happily the dangerous project of the Majority, the sea-level canal dug in the dry direct, was rejected and the whirlpool of Charybdis avoided.

Unfortunately, instead of steering in the right course the Minority gravely damaged the ship by striking on the rock of Scylla.

The Seven Minor and Major Errors of the Minority

The fervour with which the *Godin de Lépinay Idea* was taken up again by the Majority of the *American* engineers on the Board is undoubtedly due to the fact that it reproduced artificially on a smaller scale the characteristics of the Nicaragua plan to which they had so long adhered, and which they had long thought eminently desirable.

The creation of a Central Lake at an altitude of 85 ft. by the erection of a dam across the Chagres valley at Bohio, as had been determined in 1901, met in 1905 with a great obstacle.

This was the limitation of the canal's power of transportation owing to the limitation of the flow of the rivers feeding the summit level.

The Commission had fixed it at forty million tons. I had established before the Consulting Board that with this project the works of transformation were indispensable at the very outset, if they wished to be able to deal after a few years with the increasing traffic.

In order to postpone the date of this transformation which I had declared to be inevitable the Minority displaced the dams, carrying them lower down the valley towards the mouth of the river.

This permitted the entrance into the lake of two powerful tributaries of the Chagres at points below Bohio, the Rio Trinidad on the left and the Rio Gatun on the right.

The feeders of the lake were thus increased as well as its surface, and consequently its capacity of storage between two given levels.

This was the revival of the plan originally suggested by Godin de Lépinay in 1879 under the reservation that the possibility of erecting a dam at the point in question be established.

This conception on the part of the Board's Minority was most deplorable.

As always happens when you try to force upon Nature a preconceived idea not inspired by her needs, she takes her revenge in unexpected reactions.

The dam was displaced towards the mouth in order to increase the storage of water. But it was not remarked that the belt of hills closed by the dam was dangerously fissured, a phenomenon found only at Gatun and nowhere else on the Isthmus.

It was not remarked that the risk was thereby run of losing through these fissures much more water than was obtained by the acquisition of the inflow of the Rio Trinidad and Rio Gatun.

It was not remarked that owing to these losses, there was a risk that the lake might eventually fail to keep its necessary level. It was not remarked that wherever a particular fissure existed it was bound to be enlarged owing to the virtually soluble nature of the clayish sandstone constituting the hills.

Nor was it remarked that the dam was situated on soft, plastic deposits of clay, and that these clay deposits might eventually seek under the weight of the superimposed dam a new equilibrium, with the result that the lake would be emptied in some minutes by a displacement of this essential organ of the Canal's existence.

In a word, a double and terrible risk was taken; that of seeing the dam crumble away when the lake was filled, and that of seeing the lake lose a part of its precious contents if the dam remained stable. These two risks were demonstrable, and they have been demonstrated by events.

The fact as regards the risk of loss through fissures is registered in the Congressional documents in Washington. Major Sibert declared

to a Committee of the House in January 1909 that the eventuality of loss of water of the lake by fissures was a *risk* which had to be *taken*, given the plan adopted.

I sought to clear up the question and to show the error both at the time of the adoption of this insecure plan in 1906, and also later on in 1908–9. There was then still time, as no works to speak of had been begun at Gatun.

I have, therefore, nothing to reproach myself with if these risks taken without the slightest legitimate reason are later on transformed into a catastrophe.

It may be hoped indeed that that will not be the case. But at any rate these risks will remain a constant menace.

The only resource is to begin as soon as possible the transformation of the lock canal into a Straits.

It is necessary, in order to render the question completely intelligible, to add a few words as to the errors committed by the Minority of the Consulting Board.

There are seven of them. The first five are errors of minor importance, for they do not concern the very existence of the Canal. The two latter, however, are of quite another order, for they imperil the gigantic work undertaken and carried out.

The statement of these errors will show that though the Minority endeavoured with all its might to construct a perpetual lock canal they merely succeeded in reality in making a bad ante-chamber for the "Straits" at the cost of certain dangers and risks which are as terrifying as they were unnecessary, not to speak of the totally unnecessary added expenditure of $200,000,000.

The Depth of the Culebra Cut: First Error of the Minority

When this project was adopted by President Roosevelt I wrote to him on March 5, 1906, in an open letter which was published by the *Sun*:

"*I do not hesitate to state that the digging in the dry through the central mass down to 40 ft. above sea level for the passage at 85 ft. water level will retard the opening much more than is expected; that this question is the only one which presents a real gravity* [for the difficulty of the construction], *and that therefore a higher passage at* 130 *ft.* [with the bottom of the cut therefore at about 100 ft. above the sea] *is recommended by all considerations of logic and experience.*"

If the advice dictated by the experience of facts and which I had given in September 1905 had been followed, the Canal would have been opened four years later through the Culebra Cut at the required altitude, as I had announced.

On October 27, 1909, at the Culebra summit itself, the bottom

of the cut had been lowed to 18 ft. above the required level of 100 ft. Until then, work on the Canal had been mainly confined to the widening of the cut opened by the French. If the object had been to reach the 100 ft. level and to remain there the Canal would have been finished in September 1909.

Never would any serious slide have taken place, since it was only in December 1909 that the first great subsidence occurred.

Since then the volume of the slides has been enormously accentuated, the depth of the cut having been increased, with the excavation in the dry, and the consequent adoption of too vertical side slopes. These slides were due to there being no time to take the necessary precautions.

Up to July 31, 1909, that is, up to the time when the 100 ft. level above the sea was approximately reached, the grounds which were excavated from the slides formed only 8·5% of the amount excavated from the virgin mass *in situ*.

From July 1909 to June 1910 the proportion was 17%.

From July 1910 to June 1911 the proportion was 36%.

From July 1911 to June 1912 the proportion was 53%.

These figures emphasise with sufficient eloquence the terrifying increase of the slides when the cut was dug lower, without respecting the equilibrium demanded by Nature.

They are the clearest and most explicit retort to the arbitrary but illusory assertions of the Majority of the Board when they recommended in January 1906 descending to 40 ft. *below* the sea, and the maintenance of the greater part of the side slopes at four vertically on one horizontally because, as they said, the *ground had been classed as rock*.

The bottom level adopted by the minority, 80 ft. higher, has not yet been reached, and it is contemplated, as we have seen, that even the hope of finishing the cut in the dry should be abandoned. When recourse is about to be had to the dredge, in despair of finishing in the dry a cut invaded by slides, it is clear what would have been the fate of the cut as adopted by the Majority. For this cut was not only 60 ft. lower than the 100 ft. level, but 140 ft. beyond this limit of safe work and stable slopes.

The Culebra Cut in the actual project entailed originally an excavation of 53,765,000 cubic yards. At the end of August 1912 the amount of excavation in the slides done, or remaining to be done, exceeded 20,000,000 cubic yards.

This represents more than thirty-seven per cent. of error in the calculation of the mass, and the cut is not yet completed.[1]

[1] In February 1913 more than five million cubic yards were added to the estimates of slides to be excavated. With such addition the total estimates for slides reached 48 per cent. of the original estimate of the Culebra Cut excavation made in 1906 by the Minority of the Consulting Board!

To be sure, the American engineers and their chief, Colonel Goethals, have accomplished prodigies to reach the goal. These prodigies of persistence and of methodical organisation, have in a certain measure compensated for the error of the Minority of the Board and prevented a direct failure, thanks also to this method of dredging which the Board had so contemptuously rejected.

It is, indeed, an immense pity that such a brilliant display of intellectual and executive ability has been wasted in order to redeem the obvious defects of an erroneous conception.

It is, indeed, a great pity that it was not concentrated on the attainment of a useful and fruitful aim, adapted to the requirement of Nature and to the means of Science: the opening of the "Straits" by the rational dredging method so blindly rejected by the Minority, and now recognised as essential to the punctual conclusion of the Minority's project.

Dimensions of the Locks: Second Error of the Minority

Another consideration condemned in advance any attempt to render a lock canal at Panama perpetual. It is the constant and rapidly accelerating increase of the dimensions of ships.

No more striking example could be had of the folly of trying to imprison within the narrow limits of the dimensions of the locks the immense activity of the greatest sea-route of the future.

In 1851 out of 261 steamships then in existence throughout the world there were only 15 drawing more than 17 ft.

In 1900–1 there were 16,264 steam-vessels of all kinds registered at Lloyd's Register, and among them a certain number drawing 30 to 32 ft.

In 1901 the broadest man of war in construction was the *Regina Margherita* with a beam of 78 ft.

In 1912 the breadth adopted for the *Pennsylvania* is 98 ft.

In 1901 the largest commercial vessel was the *Celtic*, 698 ft. 8 ins. long and 75 ft. 4½ ins. broad.

In 1912 there was already at the bottom of the ocean a ship 882 ft. 6 ins. long and 94 ft. broad, the *Titanic*.

In 1913 there is under construction for the White Star Line a ship 902 ft. long. For the Hamburg-American Line a ship 918 ft. long and 98 ft. broad, the *Imperator*, was launched in May 1912. She will begin her service in May 1913.

It is in the face of this remarkable progress that the Minority of the Consulting Board fixed in 1906 the dimensions of their perpetual locks, giving them a length of 900 ft. and a breadth of 95 ft.

The Canal is not yet open. Six years only have elapsed, yet already ships are being constructed, both for military and commercial purposes,

which are longer and broader than these locks, thought to be perpetual.

This Canal, already obsolete before it was born, appeared, nevertheless, to its projectors so much beyond all possible future requirements in size that they wrote : " A judgment must be formed as to what further increase of ship dimensions may be reasonably anticipated. In forming such judgment it is believed that the period for which such reasonable provision is to be made should be also a reasonable one; for example, probably no one would expect to provide in any commercial or military construction for needs at the end of the present century."

The Minority could not be expected to make provisions for a period of one century. But it was legitimate to count on their clear-sightedness to see to it that they would arrange for a reasonable period during which the locks would satisfy all existing needs. This was not what was done. This " reasonable period " was negative : the canal which the Minority projected would never have been adequate to the duties devolving upon it, even for one single minute. It would have been obsolete before being born. It had to be modified after its adoption.

In course of construction, the precarious limits of its usefulness as a perpetual lock canal, such as the Minority conceived it, were somewhat extended by the increase of the lock dimensions.

The dimensions were enlarged to 1000 ft. length by 110 ft. breadth.

This affords a reprieve of a few years, an infinitesimal margin, which the constant progress in naval architecture will soon outstrip. In a few years the Panama Canal will be again obsolete as regards the dimensions of its locks.

Estimates of Expenditure : Third Error of the Minority

The Minority of the Consulting Board was equally lacking in foresight as regards the cost of its project.

The estimates when the project was drawn up in January 1906 were $139,705,200.

On the 12th of December, 1908, the *New York Herald* reproduced a declaration I had made to its Paris correspondent. I had stated that in my opinion the total costs would exceed $280,000,000.

This caused a profound sensation in the United States, where no hint had yet been made of an increase in the estimates.

Some weeks later it was officially announced that, according to the revised estimates, the expense would be $282,766,000 instead of $139,705,200.

Later on, the width of the bottom of the cut through Culebra having been increased from 200 to 300 ft., the final estimates were fixed at $297,766,000.

Amount of Water Available for Operation : Fourth Error of the Minority.

The Minority of the Consulting Board declared that the minimum flow at Gatun, according to documents covering fifteen years, was 1250 cubic ft. per second during the driest three months.

They admitted a reduction of twenty per cent. in order "to provide for still drier periods," and declared that *a flow of 1000 cubic ft. per second could be adopted* AS AN ENTIRELY SAFE QUANTITY for the three driest months of any year in the future.

Two years later Nature gave the lie to the Minority. In 1908 the flow at Gatun during the three driest months was 930 cubic ft. per second.

Four years later, in 1912, it fell to 608 cubic ft. per second.

Such is the considerable error made in the prophecies of the Minority on the flow during the three driest months. The remedy to the deficiency is in a greater variation in the maximum and minimum level of the Gatun lake. It was, in the Minority's plan, to vary between altitude 82 and 86. One must now adopt a variation of seven feet instead of four, that is to say, between altitude 80 and altitude 87.

But the Minority has not less erred in the question of the minimum yearly flow. They have adopted General Abbott's calculations and consequently the figure 5730 cubic ft. per second as the *minimum annual contribution* which *may confidently be expected from the Chagres and its tributaries* at Gatun.

The *Canal Record* of September 18, 1912, gives for the average discharge May 1905 to April 1906, 4526 cubic ft. per second, and 4626 for the same period in 1911–12.

This shows that Nature has not given what was said could be so *confidently expected.*

As the passage of forty-eight ships requires 3792 cubic ft. per second for lockages, evaporation and other calculable losses, it is easy to see that hardly any margin exists to provide for still drier years than the ones mentioned, or for other losses through fissures of the hills, etc. The Minority, has therefore, been completely wrong again on the point of the minimum yearly flow which could be *confidently* relied upon.

These figures show how grave is the illusion which consists in basing on the capricious eventualities of meteorology the traffic-carrying capacity of the Panama Canal. Such calculations may apply during the first years so long as the traffic remains relatively slight. They will become absurd as soon as the traffic reaches twenty or thirty million tons, as it is bound to do some ten or twelve years after the opening.

Dam on the Pacific Side at La Boca: Fifth Error of the Minority

The Minority of the Consulting Board had projected the dam on the Pacific side quite close to the shores of the ocean across the low Rio Grande, on a broad flat, formed of a blue-grey marine, clayish silt, plastic, and slippery, covering a table of rock or hard clay.

The dam was exposed in case of war to destruction by bombardment from the high sea.

Before beginning the works on such a suspicious foundation the Secretary of War, Mr. Taft, went in the spring of 1907 personally to inspect the site. He was accompanied by an advisory board formed of two of the signatories of the plan, MM. Noble and Stearns, and of a third engineer, likewise of great distinction, Mr. Freeman.

They made the following declaration :

"For the dam construction we do not think it will be necessary to remove the soft material . . . the very softest material will be either displaced or consolidated by the material disposed on it."

But when the deposit began, slides, displacements of the loaded ground, took place in such proportions as to discourage the builders. On December 9 of the same year, 1907, Colonel Goethals gave a graphic description of the difficulties encountered in a report to the Secretary of War which was inserted in the *Canal Record* of December 25, 1907. His conclusion was :

The investigations clearly demonstrate that the construction of dams which would remain in place after the lake is filled can be accomplished only by the removal of all the material overlying the rock.

The readers of the *Canal Record* must have been indeed more than astonished when they saw in the same journal on the 31st of March, 1909, the reproduction of a paper read in Chicago by Colonel Goethals on the 16th of March preceding, in which he says on the same subject :

I know that the La Boca dams could be built to withstand safely the heads of water in the resulting lake by adopting either the method of dredging out the ooze or by giving massive dimensions to the superimposed structure.

[That is, without the removal of the material overlying the rock.]

Between the two official and mutually contradictory opinions of Colonel Goethals I prefer the first one to the second. Subsequent events have justified me in this opinion.

The treacherous nature of this ground caused, on August 17, 1912, the almost complete destruction of the Panama Railroad wharf at La Boca.

It had been established by the American administration on piles driven into this ground soon after the Canal and its adjunct the Railroad was delivered to it by the French company in 1904.

The wharf collapsed, as the dam would have collapsed one day if it had been erected on this treacherous ground, as suggested in March 1909 by Colonel Goethals, and against the far-seeing and wise decision of Colonel Goethals in December 1907.

The wharf not only collapsed on August 17, 1912, it also sunk a great steamer, the *Newport*, which was tied up to it. This was the same vessel that had had the honour of inaugurating the new canal entrance into the Pacific on February 1, 1909, on its way to San Francisco.

This wharf was thus erected on this soft and suspicious ground next to another one which the French company had established on caissons resting on the rock below, about ten years earlier. The French wharf has never shown any sign of weakness.

The fate of these two wharves shows what would have been the fate of the dam, constructed according to the method adopted. It would have collapsed just as the wharf did, if it had been built on the treacherous soil, as recommended by the Minority in 1906, and again by MM. Noble, Stearns, and Freeman for the special inquiry of Mr. Taft in the spring of 1907, and as it was declared feasible by Colonel Goethals in March 1909. It would not have collapsed (on account of its seat at least) if it had been built, as the French wharf was built, by erecting the structure on the bottom rock, as Colonel Goethals explicitly had declared necessary in December 1907.

It may be considered as most fortunate, therefore, that the first opinion of Colonel Goethals prevailed. It led finally not only to the abandonment of the wrong system of construction, but also to abandoning the La Boca location itself for that of Miraflores, higher up the river, the site which I had selected in the lock-canal project of the old company for the first lock on that side.

This fact once more shows how erroneous, in the light of facts, was the opinion of the Minority even after its most eminent members were called upon to make a revision or correction of their projects if they thought necessary.

Dam on the Atlantic Side at Gatun: Sixth Error of the Minority

Unfortunately the American administration did not abandon the location of Gatun for the dam on the Atlantic side as it did for the dam on the Pacific side.

When the Minority, in 1906, changed the Isthmian Canal Commis-

sion's project of 1901 by the substitution of a dam at Gatun for the dam at Bohio, some ten miles lower down, the width of the valley, and consequently the length of the dam, was found to be increased from 1300 to 7700 ft.

Instead of finding the solid rock below the loose ground at a depth of 158 ft. it was found at 255 ft. below the sea.

The Origin of the Method of Construction.—The Minority of the Consulting Board did me the great honour of borrowing from me, for construction of this gigantic dam, a new process of execution which I had devised.

It was described in my book of 1892 for a small earth dam at Bohio, and I exposed its characteristics before the Board in September 1905.

It was adopted by the Minority in its report of January 1906, but its origin was wholly forgotten. My contention is, however, established by the description of the same process in the same report, under my signature in September 1905 and under their signature in January 1906.

This process consisted in the formation of the body of the dam by a deposit of earth, first dredged, then transported, by water through centrifugal pumps to the site itself of the dam.

This new method alone made it possible to consider the erection of a dam of more than 20,000,000 cubic yards.

The Earthquake Danger.—As I thought that my new method if applied at Gatun would result in a structure eminently dangerous for the security of the Canal I protested against the Gatun dam in my open letter to President Roosevelt of March 5, 1906, published by the *Sun.*

"I consider such a structure as a highly dangerous one in view of the softness of its mass, if one takes into account the light earthquakes which are frequent and must be constantly expected on the Isthmus.

"They often cause the fall of glasses on the tables and such inclinations of the ground will determine successive compressions and depressions in the soft and extremely long mass which will cause ruptures of continuity and immediate wash-out."

This fear of the effect of seismic movements for an earth dam at Gatun is not a product of imagination. In the report of the Isthmian Canal Commission signed in 1901 it may be seen that on September 7, 1882, an *earthquake opened crevices in the ground at Colon.*

It is probable that it also opened crevices six miles farther at Gatun, but no man saw them, as the region was then for the most part virgin forest.

If the dam had existed at this moment the slightest fissure would have destroyed it and the Canal with it.

The frequency of earthquakes on the Isthmus is made manifest by

the *Canal Record.* In the last three years only five were important enough to justify an article in this publication.

The earthquake of August 30, 1909, was violent; *the vibrations were sufficient to throw the pens from the cylinders of the high tension instruments.* The earthquake of April 13, 1910, caused a vibration of seventeen millimetres. The earthquake of December 20, 1910, lasted twenty-three minutes, and the earthquake of the following day thirty-eight minutes.

This terrible and constant danger had not escaped the attention of the Minority when they conceived the project of the long soft dam of Gatun. For that reason they surmounted it by a mass of earth and rock 50 ft. high above the normal level of the lake. Its crest was to be 135 ft. above the sea, and 50 ft., therefore, above the 85 ft. level of the lake.

In a letter of May 18, 1906, Mr. Frederic P. Stearns, the leading member of the Minority, believes the dam to be protected against such dangers (Sen. Doc. 3626, 59th Congress, 1st session):

"*It is my opinion that a dam so designed is earthquake-proof, by reason of the great height to which it is built above the level of the water in the proposed lake.* . . . If a . . . . line of rupture should occur passing directly through the dam the pressure of the superincumbent earth would, in my opinion, squeeze the sides of the fissure together, so that no water could pass out of the lake . . . . *but if any one questioned the certainty of this action, the weight could be increased* without materially increasing the cost of the Canal *by building the high portions of the dam up to* 100 *or* 150 *ft. above the water line.*"

Mr. Frederic P. Stearns attributes, as this statement shows, a paramount and indispensable importance to the height of the portion of the dam above the water. If he admits a weakness in the plan adopted, it is due to the *insufficiency* of the height of 50 ft. He proposes to double, even to treble, the height. *It will not materially increase the Canal Expenditure,* he says on May 18, 1906.

Danger from the Soft Seat of the Dam.—But the dam is not exposed only to the danger of being fissured by seismic vibrations.

It is also exposed to a collapse on account of the softness of the plastic blue clay on which it is partially situated.

When the works were begun, a rock embankment, which was to form one of the feet or toes of the earthen mass of the dam, suddenly collapsed.

The *Canal Record* announced on November 11, 1908, the completion of the embankment at the required altitude of 60 ft. above the sea. On November 25 following it sunk 20 ft. over a distance of 200 ft.

On the 12th of December following the *New York Herald* filled two columns of its front page with an interview wired from Paris under the title: *The Panama Canal may be History's greatest Ruin, says M. Bunau-Varilla.*

The sensation produced was intense. Mr. Taft, who had been elected President the previous month, announced the same day that he was going to leave for the Isthmus. Soon after it became known that a special commission of engineers was to accompany Mr. Taft and examine the situation fully. I was myself invited, some time afterwards, to present my views before the Commercial Club of Boston. I accepted for February 25, 1909.

I may here observe that the Senate of the United States decided on the 2nd of March following, according to the proposition of Senator Foraker, to print the text of my Boston lecture among the Documents of the Senate.

Colonel Goethals, after the publication of the *New York Herald*, was requested to answer the explicit charge of instability that I had advanced against the Gatun dam.

In his report of August 25, 1908, preceding that, Colonel Goethals had written, speaking of the earth below the dam: *The material encountered is of such nature as to be amply strong for supporting the proposed structure.*

The accident of November 20 following entirely invalidated this expression of opinion.

On January 10, 1909, was published a part of the report of Colonel Goethals made in answer to the charges I had proffered. In one place it said, speaking of the collapse of the toe:

"In sinking it has squeezed out and pushed up the clay underneath it. . . ."

In another part of the report Colonel Goethals expressed himself thus:

"The stratum of blue clay, which M. Bunau-Varilla mentions as a danger at Gatun exists chiefly in two deep gorges in the rock which are crossed to about right angles by the axis of the dam, and where crossed are about 1900 ft. and 950 ft. wide respectively at sea level. . . . . *It requires only to be held in place to form a reliable foundation, for an earth-dam of suitable cross section.*"

The necessity of depending on methods necessarily hazardous to prevent the sliding of the foundation supporting the dam, owing to its weight, was the most cruel and implicit accusation of instability.

It was also the formal reversal of the opinion emitted in August preceding by Colonel Goethals as to the ample capacity of the subjacent soil to support the weight of the dam.

The Scientific Spirit invoked in vain.—I feared that the inquiry made by Mr. Taft would have the same result as the one conducted by him with MM. Noble, Stearns, and Freeman on the dam of the Pacific side in the spring of 1907, the findings of which had been flatly contradicted by facts.

I wrote to the *Paris Herald* a letter which was wired to New York and immediately published. My conclusion was the following:

"The Panama question is not a question of opinion or creed; it is a question of science. It must be treated in the scientific spirit, and a final judgment must be based on facts and not on the *authority of opinions.*

"None of these men who have previously expressed an opinion should be a member of the final tribunal which will have to confront facts with opinions."

The same copy of the paper which reproduced this letter on December 30, 1908, published also the names of the experts appointed to accompany Mr. Taft.

The Commission included the very Mr. Stearns and Mr. Freeman, who had formulated in 1907 a recommendation which had been contradicted by facts.

In included also Mr. Randolph, a former member of the Minority of the Consulting Board, who like Mr. Stearns had signed the Minority's report and proposed the Gatun dam.

To these three engineers, already connected with the question at issue, were added three others and later on a fourth. The three new engineers, according to information published by the *Herald*, which was not contradicted, as far as I know, were selected on the recommendation of Mr. Noble. The latter was a most conspicuous member of the Minority and a co-signer with MM. Stearns and Randolph of the Gatun dam project. He had also reported in the spring of 1907 with MM. Stearns and Freeman on the La Boca dam. He had with them recommended the system of construction which Colonel Goethals condemned in December of the same year, declaring that facts had shown the impossibility of their scheme for a *dam that would stand the pressure of the lake.*

My invocation of December 1908 to the scientific spirit and to the experimental method therefore had been in vain.

Guarantee against Earthquakes sacrificed.—The Taft Commission had to pass judgment on the great work which was the keystone of the entire Canal. The destruction of this work under the pressure of the enormous lake which it had to withstand, would inevitably cause the disappearance of the Canal as well. The destruction of the Canal meant the cutting of the artery indispensable to the commerce of half a continent and to the military defence of the United States.

This work was thus exposed to two classes of dangers. It could be ruined by a wound in the head, if earthquakes were to open fissures in its upper portion. Mr. Stearns had written, as we have seen, that the superimposition of a mass of at least 50 ft., perhaps better 100 ft. and even 150 ft., above the water would close the fissures, were any created.

But events at the same time had shown that, apart from the danger

menacing the head of the dam, another menaced its foot. This second danger was the softness of the plastic blue clay on which the dam was situated over a part of its length.

Against the danger at the foot, it was necessary to adopt a remedy just the reverse of the one adapted to the danger at the head. It was necessary to make the dam lighter, to reduce its weight, and consequently its height. As it was impossible to reduce the level of the lake, any reduction of the height had to bear on the part of the dam superimposed above the lake level, on the part so necessary to counteract the risks of the earthquakes according to Mr. Stearns' official opinion.

The necessity of reducing the height of the crest of the dam in order to increase the *stability* even at the cost of its security in case of earthquakes is not a hypothesis. It is inserted in the Documents of Congress.

An inquiry was made on the Isthmus on January 6 and 7, 1909, by a Committee of the House of Representatives.

One of the distinguished co-operators of Colonel Goethals, Major Harding, clearly explained the situation.

A member of the Committee, Mr. Esch, asked: "Would that diminution in height lessen the *security* of the structure?"

Major Harding answered: "I think it may possibly increase the *stability* of the structure. . . . Then if we lower the level of the crest of the dam 20 ft. we take off a ton to the square foot of the base of the dam underlying the part that is taken off."

Such was the problem which the Taft Commission had to solve when they went to Panama with the object of considering my accusation as to the instability of the base of the dam.

If this accusation was unjust the measures of protection against the other danger, the danger of earthquakes, which I had denounced at the outset, ought to have been maintained.

It would have been even well in such a case, as Mr. Stearns himself proposed, to increase from 50 to 100 ft., or to 150 ft., the height of the mass superimposed above the water line.

If this accusation was just, nothing could be done but to disregard the danger of earthquakes, and to lessen the height *of the crest above the water level.*

What did the engineers of Mr. Taft's Commission do in presence of this double alternative: *They reduced from* 50 *to* 30 *ft. the height of the mass superimposed above the water level. They diminished this guarantee against the earthquakes which Mr. Stearns had said to be so precious and which he had proposed a short time before to increase.* They reduced the altitude of the crest above the sea from 135 to 115 ft. without changing the normal level of the lake at 85 ft.

This document, which thus reduces the protection against the dangers of seismic movements, is signed by Mr. Frederic R. Stearns.

This contradiction is striking and apparently inexplicable in view of the fact that at the beginning of the report it is declared, speaking of the materials underlying the dam :

" Nor are they so soft as to be liable to be pushed aside by the weight of the proposed dam, so as to cause dangerous settlement."

It will be asked : What justification was offered by the Taft Commission for this grave modification at so solemn a moment ?

The Taft Commission simply wrote, as may be read in the *Canal Record* of March 3, 1909 :

" We were requested to consider the proper height of the crest of the Gatun dam, and after consideration concluded that it could be safely reduced 20 ft. from that originally proposed. . . .

" Changes in this respect will facilitate the work of construction, and will reduce somewhat the cost of the proposed work."

Thus this is the only reason given by Mr. Stearns and his colleagues in 1909 for suppressing a part of the guarantee against the action of earthquakes. It was a guarantee which two years before, in 1906, Mr. Stearns had thought so necessary that he considered it justifiable to raise the height 50 or even 100 ft. above the original height of 50 ft.

" *To facilitate the work and somewhat reduce the cost.*" Such was the motive which the Commission invoked in suppressing this precious guarantee.

To be sure any engineer, like any man, has not only the right to change his mind and to substitute a new idea which he thinks preferable to an older one, he has also the right to express his opinion without explaining in detail the reason justifying his conclusions.

But in this momentous question, when the fate of the greatest enterprise of man depended on a correct appreciation of the facts, the nation had a right to know what had brought about this evolution in the opinion of the foremost authority on dam construction in Mr. Taft's Commission.

But the history of the determination of the height of the crest of the Gatun dam was not to stop there. On February 21, 1912, the *Canal Record*, referring to the western part of the great dam, said :

" *Its length is to be* 8000 *ft., its greatest width* 3000 *ft., and its final elevation about* 105 *ft. above sea level.*"

This time the *Record* offers no explanation of this violation of the Presidential Decision as to the height of the dam, which was the object of a special message to Congress in February 1909.

At that moment there still remained nearly three years before the opening of the Canal, and the dam is now almost completed.

There can be no longer any question of facilitating its completion, and the reason given by Mr. Taft's Commission for the first reduction of height of the dam applies no longer to the new reduction.

No reason whatever is put forward for this reiterated reduction of the protection against the earthquake.

What must we conclude from these facts ?

Are we not entitled to see in the report of Mr. Taft's Commission a new demonstration of the tyranny of the Spirit of Authority ?

It is signed by men whose character is above suspicion, whose sincerity is absolute. But are they not blindfolded by the veil which the Dogmatic Spirit extends over man's eyes—by this veil which conceals the lessons of experience ? It conduces to a disregard of the facts which Bacon has taught humanity to use as the sole foundation of knowledge !

What was the consequence of this supreme manœuvre of the Spirit of Authority to paralyse the Experimental Spirit ? Error !

Error took possession of the Head of the State and through him of Congress and of the Nation.

Mr. Roosevelt in his message of February 17, 1909, wrote this very natural, but also very erroneous, explanation of the recommendations of Mr. Taft's Commission :

" As to the Gatun dam itself they [the Engineers] show that *not only is the dam safe*, but that on the whole the plan already adopted would make it *needlessly high and strong*, and accordingly they recommend that the height be *reduced by* 20 *ft.*, which change in the plans I have accordingly directed."

It is obvious that the President never would have written these lines had he known that Mr. Stearns, the most eminent authority on dams from among these engineers, had less than three years before explained how the maintenance or even the increase of such height was the *essential guarantee*, in his opinion, of *safety* in case of earthquakes.

This executive order was to be violated three years later, as we have seen, for an unknown reason.[1] This reason must again be the cause,

[1] On Monday, December 16, 1912, say about three months after the above was written, the Annual Report of the Isthmian Canal Commission for the fiscal year ending June 30, 1912, reached the author in Paris. It is dated Culebra Canal Zone, September 10, 1912, and signed by the Chairman and Chief Engineer, Colonel Goethals. It was, therefore, prepared on the Isthmus about the same time as this part of the present book was being written in Paris.

The statements of facts of Colonel Goethals entirely justify the warnings which the author has not ceased to express about the terrible dangers to which the Gatun dam is exposed. This report also shows clearly why the altitude of the crest, finally determined by Presidential Order of February 1909, could not be reached safely in practice and had to be reduced 10 ft. at the risk of another and very grave danger—that of earthquakes.

On October 12, 1911, *a movement occurred in the east half of the dam, on the north (downstream) side. For a length of approximately* 1000 *ft. the top of the dry fill settled* 4 *or* 5 *ft.*

the *force majeure*, which had started the whole controversy: the softness of the subsoil and its inability to support the weight of the dam as it was first projected by the Minority.

Loss of Stored Water: Seventh Error of the Minority

Apart from the two dangers menacing the head and the foot of the Gatun dam there is another no less terrifying danger which was blindly accepted by the Minority.

It consisted in the escape, through the fissures of the hills forming the rim of the lake, of a part of the water stored for the operation of the Canal.

I attracted public attention to this grave possibility in my lecture of February 1909 in Boston.

The water-tightness of the natural ground outside of the dam proper is obviously indispensable. It would otherwise be impossible to calculate what amount of traffic the Canal could carry, and to depend for such calculation on the amount of water flowing into the lake.

This traffic indeed is dependent on the number of lockages which the provisions of water delivered by Nature allows.

... *While the crest of the slope moved downward, the lower portions of the slope were bulged upward to a certain extent, measurements showing a rise of* 1¼ *ft. on the* 60 *ft. contour. . . . It is proposed to continue observations and ultimately to bring the dam to* 105 *ft. above sea level, and, if necessary, subsequently to raise it to the height originally advocated.*

Colonel Goethals evidently, by these last words, means to speak of the altitude of 115 ft. *finally determined by Presidential Order of 17th February,* 1909, as substituted for the altitude originally fixed in the project of the Consulting Board's Minority at 135 ft. above the sea.

Colonel Goethals further says in his report:

A movement occurred at the same time in the south (up-stream) slope, the greatest lateral motion being 6·5 *ft. on the* 75 *ft. contour.*

He says also, speaking of the part of the dam near the hill on its western end:

Here the plan proposed [by the Taft Commission in 1909] of making *the up-stream slope* 1 *on* 5 *and the down-stream slope* 1 *on* 5 *was approved. As dry fill was added to the up-stream face of the hill a condition developed indicating that the material on the bottom extending out from the foot of the hill would not bear the weight, so that it was necessary to flatten the slope, which was accordingly authorised to be* 1 *on* 7·67.

Colonel Goethals shows in his reports how these movements have so far been stopped by reloading the slopes at certain points, and he attributes them to internal movements of the dam though they could result from a movement of the subsoil just as well.

These facts demonstrate that in spite of the unexampled extension of the width of the Gatun dam, and in spite of the unexampled flattening of its slopes, the dam remains in such a state of unstable equilibrium that its constructors do not dare to carry out the project to the required height, though this height has been already reduced 20 ft. three years after the adoption of the project. The dam may, therefore, be at any moment the prey of a change of equilibrium of the clay on which it is seated or of the clay of which it is constituted, caused by its weight, or by the action of the waters of the lake or to the jerks of earthquakes. Such a structure is shown by facts, as it was shown in advance by theory, to be entirely unfit to guarantee the stability and permanence of a highway so necessary to the world's commerce and to the military defence of the United States.

Observations of the river can give its minimum flow either during the dry season or during the whole year. We have nevertheless to take into consideration the possible risk of a flow next year less abundant than the minimum flow known during the last twenty years.

This risk is unavoidable. It has to be taken in any circumstances. If we exclude it we have to base our calculations of the number of lockages on the admission that all the water flowing into the lake will stay there independently of all known and calculable losses such as those by evaporation.

But it is obvious that if the rim of the lake is formed of fissured hills any calculation as regards traffic becomes altogether illusory. It is evidently impossible to consider the inflow as the base of calculations, if the water can percolate through the hills at millions of points and in unknown quantities.

The experiments made at the beginning of the construction had aroused attention to this terrible question which is peculiar to the region of Gatun, and is not to be feared in other parts of the Chagres valley, because the hills are there of solid, compact, and stable rock.

Unlike the rock found nearer the centre of the Isthmus, the hills in the neighbourhood of Gatun are formed by sand cemented by clayish elements. It is a kind of intermediary between rock and earth.

Major Sibert, who was at the head of the works in this part of the Isthmus, was questioned in Panama by a Committee of the House on January 7 and 8, 1909. With his unflinching scientific directness the eminent officer showed three classes of experiments. They were of such a nature as to entail for an unprejudiced mind the formal condemnation of Gatun as a location for a lake. It was on account of the terrible uncertainty of the capacity of the rim of the lake to retain the water stored in it.

Answering a question Major Sibert said : " Yes, sir, the country is fissured."

A little later he showed that, after digging a well, and after pumping of the water, the level was lowered in all the bore-holes in the vicinity. There were some at a distance of 2000 ft. The intercommunication of the fissures was established by that experiment.

He showed also that in front of the locks, curtains of masonry had to be established through the subsoil in order to try to remove from below the foundations these dangerous underground currents. The Major said :

" Personally I do not think it practicable to cut off this flow entirely, because we do not know the depth of these fissures."

The gravity of the loss of water to which the lake is exposed was established by the fact that 38,000 to 40,000 gallons a day had to be pumped in a test pit six feet square, dug at the locks site.

All these facts, experimentally and officially established, proved to Mr. Taft's Committee :

Firstly, that many fissures existed in the hills forming the rim of the lake near Gatun :

Secondly, that these fissures entailed an unknown loss of water; and that, the loss was bound to become constantly larger with the necessary increase of the dimensions of the fissures due to the currents of water, through the argillaceous sandstone transformed in certain places, into pure volcanic ash :

Thirdly, that, apart from the terrible danger to the masonry works and especially to the masonry dam, which supports the regulation apparatus of the lake, involved in resting on a base gradually corroded by underground flow, the consequence of such flow was the impossibility of calculating the water disposable for a given traffic.

These grounds of legitimate suspicion, taken in connection with those weighing on the security and stability of the Gatun dam proper, ought to have entailed the absolute and final condemnation of the choice of Gatun at the beginning of 1909.

Unfortunately the Spirit of Authority governed this question in Mr. Taft's Committee as it had ruled in the question of the dam proper, by silencing the Experimental Spirit.

Mr. Taft's Committee declared that this question of the possible escape of the water through fissures, which could be seen only by the eyes of the mind had been settled by examination on the spot. As if the interior fissures could have been revealed by looking at the surface of the hills !

" From our *examinations in the neighbourhood of Gatun dam*, we can find no reason to apprehend important loss of water by seepage through the ridges surrounding the lake."

CHAPTER V

THE LAST ECHOES OF THE BATTLE OF THE THREE IDEAS

THE long controversy between the Experimental Spirit and the Spirit of Authority had been reopened by my interview of December 12, 1908, in the *New York Herald*. My lecture in Boston in February 1909 followed. This last chapter was ended, as far as I was concerned, by an article I published in the May number of the *Outlook*, a weekly review which possesses a great moral influence in the United States.

On the other hand, the Spirit of Authority had retorted by the visit to the Isthmus of the President-elect, Mr. Taft, and by the Report of the Engineers who had accompanied him. This Report was accepted by the President of the United States, Mr. Roosevelt.

He declared in his message of February 17, 1909:

"In fact, this Report not only determines definitely the type of canal, but makes it evident that hereafter attack on this type—the lock type—is in reality merely attack upon the policy of building any canal at all."

He also said:

"I am happy to report to you that the accompanying document shows . . . that it would be an inexcusable folly to change from the proposed canal to a sea-level canal."

I had always said, and I believe that I was the first to say to President Roosevelt, that it was, indeed, a folly to try to create a sea-level canal at once, as was the intention of his administration early in 1905, and that it was indispensable to begin by making a lock canal. But I had also maintained that it was still greater folly to try to give perpetuity to a lock canal. I added that it was foolish to choose for such an unrealisable purpose the most dangerous location on the Isthmus, Gatun, for damming the river Chagres and for establishing the structures necessary for the overflow of the lake and the lowering of the ships from the lake level to the sea level.

To my lecture before the Commercial Club in Boston, of February 25—the substance of which the Senate ordered to be printed among its documents—Colonel Goethals replied by a lecture at Chicago on March 16, before the Manufacturers' Association.

Colonel Goethals' Lecture at Chicago in March 1909

The enormous and capital services rendered by Colonel Goethals to the realisation of the Canal, and the gratitude which is due to him on that account, make me regret to have to quote certain parts of his Chicago lecture.

They will add nothing to his glory; but I am constrained to do so as an impartial and sincere historian.

Colonel Goethals, as has been seen, contradicted his own opinion, registered in an anterior Report of December 1907, that it was impracticable to construct a dam at La Boca which would remain in place if erected at the location, and by the method laid down successively by the Minority in 1906, and later, in the spring of 1907, by the Board formed by Messrs. Noble, Stearns, and Freeman.

Colonel Goethals, in 1909, said of the same dam : *The charge that the dam* [at La Boca] *could not be constructed is not true.*

The project of the "Straits of Panama," which is a precise and well-defined scheme of a cut 500 ft. wide at the bottom to be carried out by a powerful and well-experimented process, Colonel Goethals treated as a thing impossible even to conceive—as a thing belonging exclusively to the domain of the "Ideal."

He said : *There is no data for such a canal. With mountains instead of hills to be removed estimates are of course impossible.*

This is, indeed, most surprising language on the part of a man who is building a canal the bottom width of which is 300 ft. in the central cut, and precisely 500 ft. from the foot of the locks to the sea.

The Minority of the Board had indeed adopted for the sea-level section of its lock canal exactly the dimensions I had proposed for the width of the "Straits of Panama" from ocean to ocean.

Thus, if we are to believe Colonel Goethals, the estimates which are easy for the sea-level sections of his lock canal would be quite beyond the reach of the engineer for the rest of the length !

It is certainly an easy way to evade a discussion, but it is not the way that one would expect of a man of a high intellectual and moral distinction such as Colonel Goethals.

It was also during the lecture that he denied the probability of the successful application of mechanical rock-breaking to hard trap, and declared very problematical the working of the rock-breaking machine in Panama.

Facts were to answer him fully on this subject. It seems difficult, however, to suppose that a man of his scientific culture should have remained ignorant of the success of the anterior application of this system to rocks even harder than the hardest met with on the Panama Isthmus.

I determine the Mathematical Laws governing the Currents of the "Straits"

Finally, Colonel Goethals said that those who recommended the "Straits" failed "to explain how they purposed to control or divert the Chagres."

I had been very explicit, however, on this point before the Consulting Board in 1906, and in my later publications.

But I had to acknowledge that the figures I had given for the currents resulting from the tides and from the Chagres floods in the "Straits," were based only on estimates. I resolved to give them a rigorous and scientific basis.

I continued my investigations and I was fortunate enough to discover, and to formulate, the general mathematical laws governing the maximum velocity of currents at any point or any hour in any canal of any width or length, connecting a sea without tides with a sea having tides out of the same mean level.

This was the case of the "Straits of Panama."

These laws were presented to the Academy of Sciences by M. Paul Painlevé on May 3, 1909. They were thus sanctioned by the authority of one of the most illustrious mathematicians of our day.

On June 27, M. Paul Painlevé again presented on my behalf to the Academy of Sciences a second note expressing a new hydraulic law. It made it possible to calculate the results of the combined actions of the flow due to the highest tides of the Pacific and of the greatest floods of the Chagres.

These new laws provided an answer to the question put by Colonel Goethals as to the control or deviation of the Chagres. It was simply this:

"*The mouth of the Chagres is transferred from the shores of the Atlantic Ocean to the place where it enters the 'Straits of Panama.'*"

The new laws also demonstrated that under the most trying and exceptional circumstances the currents could not reach 3·32 knots, and most probably never would be, practically speaking, greater than 3 knots.

Mr. Taft, President of the Republic, publishes an Article

Mr. Taft, who had been in office since March 1909, did not think it incompatible with his high dignity of head of the greatest Republic existing, to take part in the debate. He published above his signature, in the May number of *McClure's Magazine*, an article purporting to counterbalance the effect of the one I had prepared for the number of the *Outlook* magazine of the same month.

It may be said that Mr. Taft's article marked the culminating point of the abuse of the *Spirit of Authority*.

Not only did Mr. Taft make assertions contradicted by facts on the question at issue itself, but he did not hesitate to give publicity to facts that were materially erroneous and universally known to be erroneous.

I answered in the *New York Herald* of May 7, 1909. Anybody who may consider what follows as scarcely credible may refer to this number of the great American organ. He will see that I am reproducing here only a part of what Mr. Taft unhesitatingly wrote in contradiction with facts that were both obvious and certain.

Speaking of the dam at Gamboa, as it was projected by the Majority of the Consulting Board for its sea-level canal, and which, moreover, except for a few feet, was identical with the dam I had proposed, Mr. Taft wrote :

"The Gamboa dam as projected is a masonry dam . . . with a level of the water 170 ft. against the dam and above the bed-rock of the stream. *It would be the highest dam known in the world.*"

I replied :

"MR. PRESIDENT,—*A dam retaining water* 170 *ft. above its foundation is not the highest dam in the world. At the new Croton dam, erected for the waterworks of New York, the water level is* 300 *ft. above the foundation.*

"*The first theoretically calculated masonry dam, the Furens dam, near St. Étienne, France, retains the water* 164 *ft. above the foundation. It was built half-a-century ago.*"

Again Mr. Taft wrote :

"Another difficulty about the sea-level canal, but one rarely referred to, is *the obstacle to its construction in the Black Swamp between Gatun and Bohio.* This would probably necessitate retaining walls or the draining of the swamp with such an extended area as to make the task a huge one."

I answered :

"MR. PRESIDENT,—*The Black Swamp is not on the Canal line, it is on the Railroad line, which is some miles away on the east side of and widely separated from the Canal by hills.*

"*The Black Swamp can have no influence on the future sea-level canal, because in all that region the canal has been dug more than twenty years ago and is there now.*"

Somewhat later Mr. Taft exclaimed :

"The criticisms of gentlemen . . . who institute comparisons between the present type of canal and the *sea-level type of* 300 *to* 600 *ft. in width, that never has been or will be on sea or land*, cannot disturb the even tenor of those charged with the responsibility of constructing the Canal."

I answered without insisting on the rather queer idea of a canal on sea :

"MR. PRESIDENT,—*After I proposed to the Consulting Board the 'Straits of Panama' 500 ft. wide at the bottom, the Minority of the Board adopted for the sea-level sections of its plan a width of 500 ft. at the bottom.*

"*Such a channel, which you have been told never will exist on sea or land, will therefore exist at Panama from the foot of the locks to the end of the excavation . . . say seven miles on the Atlantic side and eight miles on the Pacific side*" (that is, for fifteen miles out of fifty).

By these examples it is easy to comprehend the nature of the assertions of the President of the Republic in his article. Unfortunately for him he had engaged in a controversy of the elements of which he was absolutely ignorant.

After saying to the President in my reply that this "Straits of Panama," against which he launched anathema, would be made a reality by the transformation of the Lock Canal adopted, provided it escaped the dangers resulting from its mistaken conception, I concluded thus :

"The end of this long effort of humanity begun four centuries ago will be in view. It will have been reached by an indirect, costly, and perilous road, but it will have been reached.

"Efforts against perfection, when it is possible to obtain it, are fruitless.

"It is just as possible to stem the tide of progress as it was for the royal authority of King Canute to stop the tides of the sea."

CHAPTER VI

THE VICTORY OF THE BUNAU-VARILLA IDEA BEFORE THE SENATE AND BEFORE THE FACTS

I HAVE analysed in detail the errors of the Minority of the Consulting Board in its application of the *Godin de Lépinay Idea.* I have shown the castigation which facts inflicted upon these errors as well as upon the error committed by the Majority of the Board in adopting the *Ferdinand de Lesseps Idea.* I have likewise shown the castigation inflicted by facts on the unjust rejection of the rational process which will open the "Straits of Panama" to the world.

THE LETTER TO PRESIDENT ROOSEVELT

The need for tracing the effects of the light thrown by facts on the errors of the two sections of the Board has led us far away from the decision of the Senate of the United States in 1906, with regard to their propositions.

It is now necessary to return upon our steps in order to review this most important chapter of the events.

After I had revealed to the Consulting Board the *Key of the Secret of the Straits,* I sent to President Roosevelt on September 26, 1905, the printed text of my communication to the Board with a letter which I concluded in the following terms:

"I am happy, Mr. President, to offer to the Republic of the United States the benefit of the works and of the ceaseless researches which have held me to the study of this great problem for more than twenty years.

"If I have discovered an unknown way through the mysterious labyrinth, if I have caused a final step forward to be made towards the solution of the 'Secret of the Isthmus' which has been holding humanity in suspense for centuries, I owe it to the profound faith I have in the advantages which will result from it for mankind. I owe it also to the hope alas! deceived, that my country would find in the labour of one of her sons a compensation for the sorrows which this great and generous enterprise has caused her.

"It has pleased Destiny to render my efforts in that direction fruitless, but in its unfathomable wisdom it allows me to believe that these efforts will not be lost for France, since in the grand birth of the Panama

Bosporus the two sister Republics are going to rejuvenate their pact of eternal friendship, with the thought that they have served in common this Progress made of the efforts, of the dangers, and of the sorrows of man.

"In offering to the United States, in the person of her eminent son and of the elected chief of her generous race, the benefit of solutions which represent in money more than six hundred million dollars' economy on the works, as well as the benefit, much greater still, which will result from the immediate opening of the Canal to the activity of her citizens, I am proud to have justified the confidence of which you have given me, Mr. President, so many touching and precious proofs.

"I am, etc.,

"PHILIPPE BUNAU-VARILLA."

It was after I had thus placed the question before the Consulting Board and before the President of the United States that in the Board the mad battle was joined between the partisans of the two classical Ideas, a battle only interrupted by a community of acts hostile to the *Bunau-Varilla Idea*, the common enemy.

PRESIDENT ROOSEVELT DISMISSES THE IDEA OF A "STRAITS"

President Roosevelt, completely enlightened by my first warnings as to the dangers of the Culebra slides if the *Ferdinand de Lesseps Idea* were carried out, rallied to the *Godin de Lépinay Idea*. He went so far as to espouse the quarrel of the Consulting Board against the "Straits of Panama."

In his message to Congress on February 19, 1906, he exclaimed in a contemptuous tone, worthy of the Board itself, that there was *no question of building what has been picturesquely termed the "Straits of Panama."*

The President entirely lost sight of the all-important question of transformation, and in adopting the proposal of the Minority he evidently intended, like the engineers composing it, a perpetual lock canal.

But, on the other hand, the publication by the *Sun* and the *New York Herald* of the lectures I had delivered in New York before the Alliance Française and in Washington before the Geographical Society had emphasised the absurdity of perpetual locks.

I had sent to all the members of Congress the text of these lectures.

The *Bunau-Varilla Idea*, the lock canal transformable into a huge sea-level canal, into a "Straits," was gaining ground daily. The technical dogmas lost their hold outside of official circles.

When the question reached the Senate the project recommended by the President seemed to be doomed to failure.

The partisans of the *Ferdinand de Lesseps Idea* took advantage of the situation, and the Senatorial Commission in charge of the question

proposed to reject the perpetual lock canal and to adopt the sea-level canal immediately dug in the dry, as was proposed by the Majority of the Consulting Board.

The Lock Canal is Provisory declares Senator Knox

This turn of Fortune dictated to the Government its duty and forced it to reconsider the idea of the transformation.

Senator Knox, former Minister of Justice under President Roosevelt (who was to become the Secretary of State of his successor President Taft), was then the spokesman of the Government in the high legislative body.

He saved a situation that was apparently lost, by explaining that the lock canal supported by the President would be in time transformed into what I had called the " Straits of Panama "; that is, a free channel of 500 to 600 ft. in width and 45 to 55 ft. of water according to the stage of the tide.

This frank admission prevented the negative vote. It can be said that Senator Knox simultaneously expressed the will of the Senate and the intention of the Government.

Senator Knox formulated as follows his reasons for voting the project :

Because the lock type of canal can, if the necessity ever arises, be transformed into a true sea-level canal, one of 500 *to* 600 *ft. in width and of* 50 *ft. or more of water.*

It was exactly the dimensions I had given to the *Straits of Panama.* Senator Knox merely changed the name for that of *True Sea-Level Canal,* very likely in order not to conflict with the President's statement in his message, that *there was no question of building what has been " picturesquely termed the Straits of Panama."*

Setting aside the question of the name, it may be said that the fact was accepted by the common consent of the Government and of the Senate of the United States.

It corresponded to the desire of all those enlightened by the *exposé* of my ideas, and they were numerous both in the Senate of the United States and out of it.

Senator Dick, a devotee of the *Ferdinand de Lesseps Idea,* made a supreme effort in its favour, just as the vote was going to be taken. What he then said demonstrates how widespread the light was becoming :

" It is generally admitted that the sea-level canal is the ideal canal, and that those who have studied the question have nearly without exception admitted that the lock canal is but an intermediate con-

struction which, at some future time, may be developed into a sea-level canal."

The lock-canal project of the Government was then, on the 19th of June, 1906, accepted in rigorous conformity with the formula by which I, on the 27th of March, 1905, had opened the campaign in my conversation with President Roosevelt in the White House.

It can be condensed in these few words, which formed the title of my pamphlet reproducing the note to the President:

"Lock Canal first, Sea-level Canal afterwards."

It was the triumph of the *Bunau-Varilla Idea*, born from the Experience of Facts over its two classical rivals, the *Ferdinand de Lesseps Idea* and the *Godin de Lépinay Idea*, both of which were off-shoots of purely theoretical conceptions.

It was the triumph of Truth over Dogma nineteen years after Ferdinand de Lesseps had nobly preferred it to the *Ferdinand de Lesseps Idea* itself.

It is true that the *Bunau-Varilla Idea* has not been put into application under appropriate conditions. An unnecessary expenditure of $200,000,000; more than four years' unnecessary delay and terrible risks as well, would have been spared the United States had the first phase, the lock phase, been conceived in view of the entire evolution, culminating in the "Straits of Panama."

Unfortunately the form chosen for this first phase was to be submitted to the defects which the pursuit of the *Godin de Lépinay Idea*, henceforth illusory, had entailed.

It would have mattered little if these defects had been limited to a loss of treasure and of time. But there remains the double danger menacing both the head and the foot of the Gatun dam, and the other great danger of the scarcity of water due to the fissures of the hills encircling the lake.

We have only to hope that this treble danger will not mortally compromise the great enterprise before the dawning of the day when the invulnerable Straits shall be an accomplished fact.

The Beginning of the Transformation must be Immediate

The Idea of a "Straits," built with the preliminary agency of a lock canal, had finally, in spite of all obstacles, triumphed in the minds of the American legislators.

The date of the beginning of the works of transformation, however, has not been fixed.

But that date is determined by the facts.

The work of transformation must be undertaken immediately.

Why ?

Because the precautions which it would have been very simple to take during the construction of the lock canal were not taken. Though the Senate had considered the locks as provisory, the engineers had conceived them as permanent. The result was that they did not introduce in their design these modifications which I had pointed out to the Consulting Board as necessary for the transformation of the canal from a lock to a sea-level canal, and for the gradual elimination of the locks without stopping the navigation and without dredging to an excessive depth.

These preparatory works will have to be made before the beginning of the transformation and at a high expense. Four or five years will be required to give to the works their full regular organisation and to begin lowering the summit level.

As ten years will be required for the transformation, a total of about fifteen to twenty years must be admitted as a safe limit of time.

This shows that, as we are about to see, no time must be lost.

Even supposing that the rim of the lake is perfectly water-tight and loses none of the water brought by the rivers; even supposing the dam to be perfectly solid on its foundation and that it suffers no damage from the earthquake, the *actual lock canal will have reached its final limit of service within twenty years.*

This limit is simultaneously laid down :

Firstly : By the number of lockages which can be made during one day of twenty-four hours, which corresponds to the passage of forty-eight ships.

Secondly : By the limit of the provision of water during the four months of the dry season if the maximum possible change of levels in the Gatun Lake is taken from 87 ft. to 80 ft. above sea level.

Thirdly : By the total dry year amount of the yearly flow of the rivers falling into the lake, if it is supposed that, thanks to dams in the high Chagres, not a drop of water is wasted during the years of minimum rain. This limit is reached with forty-eight passages if a reduction of only sixteen per cent. is admitted on the yearly flows of the years 1905–6 and 1911–12.

Now what is the tonnage corresponding to the traffic resulting from this maximum of forty-eight passages a day ?

If the ships have the average tonnage of those that in 1909 passed the American Sault Sainte-Marie Canal, between Lake Superior and Lake Huron, the maximum tonnage at Panama will be 40,000,000 tons.

If the average tonnage is that of the ships passing the Suez Canal the maximum tonnage at Panama will be 60,000,000 tons.

These figures result partly from the date given in Appendix 1 of the Report of 1910 by Colonel Hodges, one of the eminent collaborators of Colonel Goethals.

It is reasonable to believe that the short-distance local trade that will be created by the Panama Canal will entail an average tonnage intermediary between those of Sault Sainte-Marie and Suez.

It may consequently be supposed that a traffic of 50,000,000 tons represents the maximum practical capacity of the Panama lock canal.

No doubt the average tonnage of ships may increase, but the Isthmian meteorology may also hold in reserve disagreeable surprises.

The calculation of the hour at which the Panama lock canal will have to be transformed into the " Straits of Panama " is the determination of the space of time necessary for the creation of a traffic through it of 50,000,000 tons.

The answer is : Twenty years.

This can be easily demonstrated. According to the statistics of Mr. Emory Johnson, Special Commissioner for Panama Traffic or Tolls, the traffic ready to pass at the opening of the Canal in 1915 is 10,500,000 tons.

Ten years later, according to the same authority, it will be 17,000,000 tons, not including the current of traffic created by the Canal itself.

It is a very modest evaluation to fix at 5,000,000 tons only the increase due to the influence of the Canal. If this figure be admitted the traffic will be 22,000,000 tons after ten years. It will have more than doubled.

The same rate of increase must be taken as the expression of the probable truth after the second decade.

After twenty years the traffic must be estimated, therefore, at 44,000,000 tons—that is, very close to the limit of the carrying capacity of the Canal, if it has not indeed positively overstepped its boundaries. It is not unreasonable to suppose that the time necessary for such an increase of traffic will be less than twenty years if we think that fifteen years sufficed at the Sault Sainte-Marie Canal to pass from 10,500,000 tons to 44,000,000.

CONCLUSION

THE works concerned with the transformation of the Canal into an open straits must be started at the very beginning of the operation of the lock canal. Otherwise it will be impossible to obtain, by the time it is needed, a free channel between the two oceans of the necessary dimensions. These dimensions are a minimum bottom width of 500 ft. and a minimum depth of 45 ft. at the lowest stages of the tide. Both width and depth may be, with great advantage, made considerably greater, 700 ft. or over for the width and 50 ft. for the depth.

The reasons for this early start of the operations of transformation are :

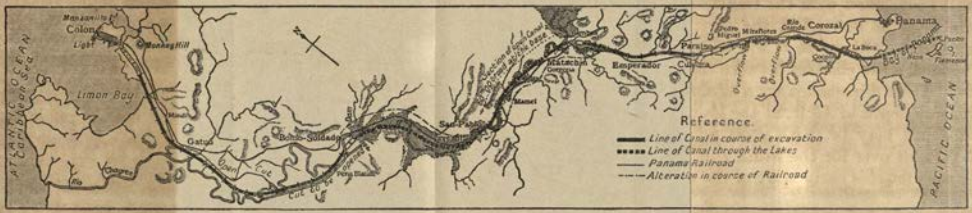
First : Because the difference between the dimensions of ships now building and the dimensions of the locks, say 82 ft. in the length and 12 ft. in the width, is only the margin necessary for locking them safely, and because, therefore, the limit of usefulness of the locks will be reached at the outset, a fact which will render them obsolete in a few years and unable to meet the requirements of the near future for military as well as for commercial purposes.

Secondly : Because it is necessary to protect the line of communication between the two oceans from the destruction to which it is exposed through earthquake shock, causing fissures in the top of the earth dam, or from a movement of the clay on which it is seated, causing a fall in its crest below the level of the lake, the crest being now only 18 ft. above the maximum level.

Thirdly : Because it is necessary to protect the communication between the oceans from the famine of water which may be caused by the escape of the water through the fissures of the rim of the lake. This danger is bound to increase with the enlargement of the fissures caused by the nature of the ground.

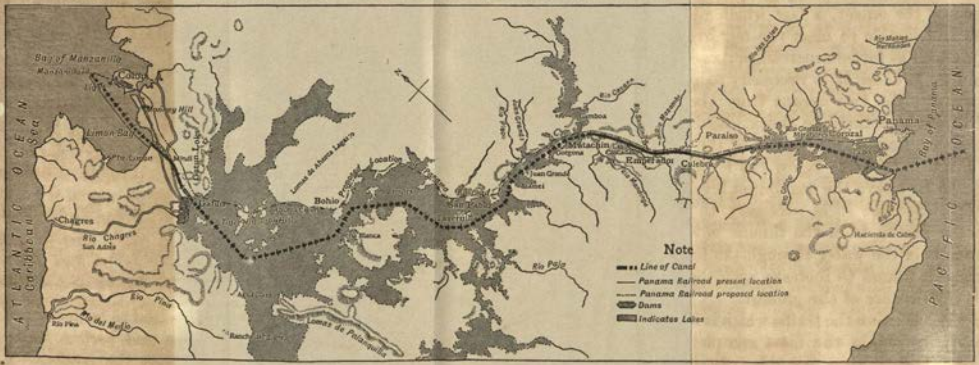
Fourthly : Because the traffic which is bound to be developed renders it necessary to obtain the most complete and perfect trade avenue within the shortest time possible, otherwise the inadequacy of the lock canal to serve for longer than a maximum of twenty years the gigantic commercial and military interests at stake, will create congestion.

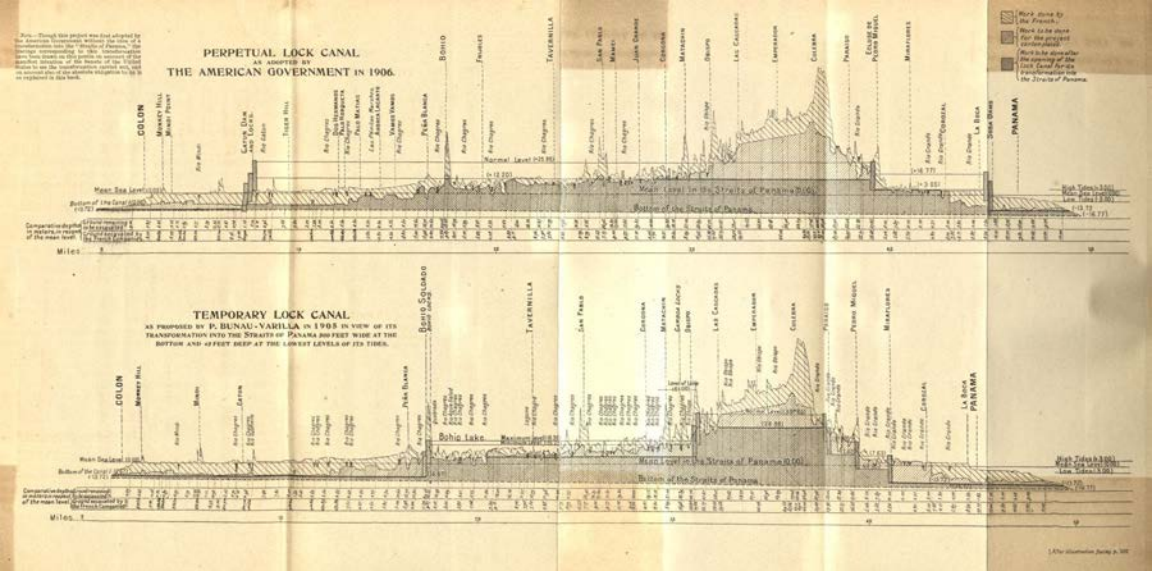
PLAN OF THE PANAMA HIGH-LEVEL LOCK (SUMMIT ELEVATION 130′) TO BE LATER TRANSFORMED BY DREDGING INTO THE STRAITS OF PANAMA DURING THE OPERATION OF THE CANAL



PLAN OF THE PANAMA HIGH-LEVEL LOCK CANAL (SUMMIT ELEVATION 85′) AS ORIGINALLY ADOPTED BY THE AMERICAN GOVERNMENT

Since then the dam at La Boca near the Pacific has been, with the corresponding locks, transferred to Miraflores higher up the Rio Grande Valley.




PERPETUAL LOCK CANAL
AS ADOPTED BY
THE AMERICAN GOVERNMENT IN 1906.
TEMPORARY LOCK CANAL
AS PROPOSED BY P. BUNAU-VARILLA IN 1905 IN VIEW OF ITS TRANSFORMATION INTO THE STRAITS OF PANAMA 300 FEET WIDE AT THE BOTTOM AND 47 FEET DEEP AT THE LOWEST LEVELS OF ITS TIDES.
COLON
BOHIO
TAVERNILLA
SAN PABLO
MIRAFLORES
PANAMA
Bohio Lake
Mean Sea Level
Bottom of the Straits of Panama
Miles

THE PANAMA TOLLS

CHAPTER I

THE THREE INTERDEPENDENT TREATIES

THE documents which govern this question are :

First : The Hay-Bunau-Varilla treaty, signed November 18, 1903, by which the United States was granted the concession of the Canal and which constitutes therefore the charter of the Panama Canal.

Secondly : The Hay-Pauncefote Treaty, signed November 18, 1901, because its stipulations are incorporated in the Hay-Bunau-Varilla Treaty.

Thirdly : The Convention of Constantinople, signed October 29, 1888, because the spirit of this Convention is incorporated in the stipulations of the Hay-Pauncefote Treaty, and consequently in the Hay-Bunau-Varilla Treaty.

The essential clauses of these interdependent diplomatic acts are as follows :

" HAY-BUNAU-VARILLA TREATY

" Art. 2 (extract).

" The Republic of Panama grants to the United States in perpetuity the use, occupation and control of a zone of land, and land under water for the construction, maintenance, operation, sanitation and protection of said Canal of the width of ten miles extending to," etc. . . . .

" Art. 3 (extract)

" The Republic of Panama grants to the United States all the rights, power, and authority, within the zone mentioned . . . which the United States would possess and exercise if it were the sovereign of the territory . . . to the entire exclusion of the exercise by the Republic of Panama of any such sovereign rights, power or authority."

" Art. 18 (extract)

" The Canal, when constructed, and the entrances thereto, shall be neutral in perpetuity, and shall be opened upon the terms provided for by Section 1 of Article 3 of and in conformity with all the stipulations

of the Treaty entered into by the Governments of the United States and Great Britain on November 18, 1901."

"HAY-PAUNCEFOTE TREATY

"Art. 3 (extract)

"The United States adopts as the basis of neutralisation of such ship canal, the following rules, substantially as embodied in the Convention of Constantinople, signed the 28th October, 1888, for the free navigation of the Suez Canal, that is to say :

"1. The Canal shall be free and open to the vessels of Commerce and of War of all Nations observing these Rules, on terms of entire equality, so that there shall be no discrimination against any such nation, or its citizens or subjects, in respect of the conditions or charges of traffic, or otherwise. Such conditions and charges of traffic shall be just and equitable."

"CONVENTION OF CONSTANTINOPLE

"Art. 1 (extract)

"*The maritime Canal* of Suez *shall always be free and open* in time of war as in time of peace to *all ships* of Commerce or of War *without any distinction as to the flag.*

"Art. 12 (extract)

"The High Contracting Parties agree by application of the principle of *Equality* as to the *free use of the Canal*, a principle which forms one of the bases of the present Treaty, that no one among them will try to obtain territorial or commercial advantages as well as privileges in the international arrangements which may be made regarding the Canal."

The two principles which the Convention of Constantinople formulated are the *Principle of Liberty*, which means the prohibition of the exercise of any rights of sovereignty, such as the levying of regal dues, or others, on traffic; and the *Principle of Equality*, that is, uniformity of treatment for any ship using the Canal irrespective of its nationality, its owner or its trade.

These two principles are sincerely and faithfully interpreted in the Hay-Pauncefote Treaty, and transferred thereby into the Hay-Bunau-Varilla Treaty, where they take the solemn form of an explicit condition of the grant of the concession of the Canal to the United States.

If the maritime highway thus declared to be *free* to *all* ships of *all nations*, under conditions of perfect quality, had been a natural passage such as the "Straits of Magellan," the principles of *Liberty* and of

Equality would have entailed the *Gratuity* of the use of the passage for *all* ships of *all nations.*

But the passage is not one made by Nature; it is an artificial passage created and maintained at a certain material expense.

It is a corollary of the principle of Liberty that while the ships must pay something to defray the cost of creation and maintenance, they cannot legitimately be called upon to pay regal dues, levied either in a direct or in an indirect way.

This fact is clearly expressed in the following words of the Hay-Pauncefote Treaty: *The conditions and charges of traffic shall be just and equitable.*

This Rule, substantially embodied in the Convention of Constantinople, is expressed in such terms as to cover the case of the Suez Canal Company, because the Constantinople Convention was signed with special reference to the Suez Canal. Its interpretation in the Hay-Pauncefote Treaty had, therefore, to be adapted to a financial system of construction and of operation by a stock company entitled to profits in a compensation for the risks incurred, such as at Suez.

It would have been worded in more precise terms in the Hay-Pauncefote Treaty had the United States then decided to construct and operate by their own financial resources the Canal through Central America. But in 1901 nobody knew whether the Canal would be at Panama or at Nicaragua, or whether it would be made by a stock company or by the Government.

The Rule just reproduced may be termed the *First Rule of the Convention of Constantinople,* and it may be said that it was made for the Suez Canal.

The Rule applies equally well, of course, to the system adopted for Panama by the United States, and is absolutely clear and precise, provided it be read, as the Hay-Pauncefote Treaty expressly stipulates, in the light of the principles of the Convention of Constantinople.

But if the *Principle of Liberty* prohibits the levying of any taxes on ships beyond what is needed for the creation and maintenance of the highway, the *principle of equality* formulates additional conditions.

It is an obvious corollary of the principle that the tolls paid for defraying the creation and maintenance of the highway must be so adjusted that all ships using the Canal shall receive equal treatment, and shall pay in proportion to the use they make of the passage.

This is made clear by the following Rule:

"The Canal shall be open to the vessels of Commerce and of War of all Nations on terms of entire equality."

This may be called the *Second Rule of the Convention of Constantinople.* It is substantially embodied in this Convention just as was the first one, as the Hay-Pauncefote Treaty expressly recalls.

It would appear as if there could be no doubt as to the signification of the First and Second Rules of Constantinople, when the Convention from which they are derived is considered in connection with the Treaty in which they are mentioned as a condition of the grant of the Canal Concession.

But if the two diplomatic acts, of which the Hay-Pauncefote Treaty is, after all, only the connecting link, are neglected, the Rules of Constantinople lose all their significance. They seem to be the mere expression of a wish or of an aspiration without precise determination.

Unfortunately, when the debate began between the two Great Powers, signatories of the Hay-Pauncefote Treaty, no attention was paid either to the origin or to the destination of the terms employed in the Hay-Pauncefote Treaty.

As always happens in similar cases the two theses came into conflict over questions foreign to the principles governing the point in dispute. The deadlock seemed inevitable and insoluble.

I undertook, after the vote of a regrettable toll law at the end of the session of Congress in 1912, to show that there was no antinomy between the English and the American theses, and that both were true up to a certain point, but that beyond that point they were both false.

I undertook to show that the exact point where the two theses met in complete harmony could be precisely determined by the simultaneous consideration of the three treaties; where an isolated consideration of the second one could end only in confusion.

In this connection I may conveniently reproduce three letters I wrote to the *Shipping World*, together with one that I addressed to the *New York Sun*.

The three letters published by the important organ of the English maritime interests appeared on August 28 and September 4 and 11, 1912.[1]

[1] The London *Times* of August 30, 1912, also published an interview with me from its Paris correspondent. It was there, in fact, that the general theory of the Panama tolls was for the first time exposed. It has not seemed to me necessary, however, to reproduce this interview since the letters to the *Shipping World* and to the *New York Sun* form a homogeneous and complete series

CHAPTER II

A BRIEF HISTORY OF THE PANAMA TOLLS CONTROVERSY

BUT before reproducing the documents in question it is necessary briefly to summarise the incidents that preceded the controversy.

In December 1908 Rear-Admiral Robley, U.S.N. Retired, proposed in *Hampton's Magazine* the free passage for American coastwise ships.

The admiral's argument may be put in a nutshell as follows :

"We have a treaty with Great Britain which prevents us from favouring our sea trade. It annoys us. Well ! Let us change it."

As will be seen later on, the Hay-Pauncefote Treaty did not prevent the American Government from satisfying the very legitimate desire to grant a subsidy to American shipping if it thought fit. But there was a preliminary condition to be fulfilled if the charter of the Canal was not to be violated. The honourable admiral had failed to see this side of the question.

In the following year the idea of exonerating American shipping from the Panama tolls entered the legislative sphere.

On the 7th of December, 1910, Senator Frye of Maine proposed a Bill ordering the reimbursement on the funds of the Treasury of the tolls cashed from all ships under the American flag.

Nearly one year later, on the 25th of October, 1911, President Taft, speaking at St. Paul, Minnesota, disclosed his policy on this subject.

He declared that the question at issue was to determine how far American shipping could be favoured without violation of the principle of Equality of Tolls. He declared that coastwise shipping could be favoured either by exoneration or by reimbursement of tolls. This would not create a discrimination, said the President of the United States, because coastwise shipping was a national monopoly, and no favour bestowed upon it, therefore, could constitute a discrimination.

This theory tended to deviate discussion : it led the debate into a path without issue, since it ignored the veritable principles ensuring a satisfactory solution for the honour as well as for the interests of both parties.

On November 15, 1911, Mr. Stimson, Secretary of War, declared at Kansas City that the United States had an absolute right, in spite of the Hay-Pauncefote Treaty, to reimburse the tolls paid by American ships, because such action was merely tantamount to a subsidy, and

because the right of subsidising her own shipping was, for a nation, an essential and natural right.

On December 21, 1911, Mr. Taft, in a message to Congress, fully endorsed the theory of Mr. Stimson. He added certain considerations foreign to the question, but of such a nature as to conciliate popular sentiments : " We own the Canal. It was our money that built it."

This statement is not true in law. The United States is not the owner of the Canal. She is the grantee of a concession, the terms of which have to be scrupulously respected, because the grantor is too weak to eject the grantee if she does not keep her word.

It was quite unnecessary to appeal to these supposed rights of property, as the concessions can be respected without despoiling the United States of any right whatever, as will be seen later on.

On the 2nd of February, 1912, the press reports announced that the New York Chamber of Commerce had voted a motion opposing the differentiation of tolls so long as the Hay-Pauncefote Treaty was not abrogated.

I immediately wrote to the *New York Herald* a letter wherein I showed that, contrary to the opinion of the Chamber of Commerce, the abrogation of the Hay-Pauncefote Treaty would not solve the difficulty. I explained that the respect of its stipulations remained obligatory in any case, because it was a condition of the charter of the Canal. I added that the Republic of Panama itself was powerless to alter the charter, on a question of general interest, because of the condition of minority into which it had fallen when accepting the protection of the United States.

A few days later, on the 12th of the same month, the Secretary of War, Mr. Stimson, declared that the Government had abandoned the idea both of exempting the coastwise trade from payment of tolls, and of reimbursing them if paid.

On the 9th of March, 1912, a Bill was approved by the Committee of the House. It provided for no special favour to be accorded to American ships save an exemption from tolls for ships belonging to the United States or to the Republic of Panama.[1]

This example shows what mistaken views have been held as to the duties of the United States in this question of Tolls.

[1] It may be well to deal immediately with a possible objection. Article 19 of the Hay-Bunau-Varilla Treaty exempts the vessels of the Republic of Panama from paying charges of traffic when using the Canal. This is not a violation of the principle I have explained. The purchase of the territorial rights for building the Canal had to be paid. This exemption is one of the payments made for such acquisition and it is natural that it should be a charge for all the ships using the Canal exactly like the interest of the $10,000,000 paid to the Panama Republic. But while the exemption of Panaman ships is merely a part of the purchase price on account of the community of nations, the exemption of American men-of-war has no such character. It means simply levying a regal due in an indirect way. It is a violation of treaty.

Evidently the Committee of the House meant entirely to respect the Hay-Pauncefote Treaty, and the exemption from tolls of vessels belonging to the United States and to Panama did not seem to them to be an infringement of the treaties.

But it was infringement, as far as the ships of the United States Government are concerned, as may be understood from the foregoing and as will be even more patent later on.

On the 23rd of May following, the House adopted the Doremus amendment giving free passage to American coastwise shipping. The amendment also authorised the President to extend this exemption to any other American ships, so long as no violation of the Hay-Pauncefote Treaty should result therefrom.

At the beginning of June the Toll Bill was voted by the House. It exonerated the American coastwise shipping from any payment.

On July 10 the British *Chargé d'affaires*, Mr. Innes, being informed that a regular protest against the House Bill then submitted to the Senate had been sent from London, requested the Department of State that the Senate should hold the matter in abeyance until the arrival of the document.

On August 9 the Senate voted a Bill giving free passage not only to coastwise shipping, but also to any American ship engaged in foreign trade if it could be used in time of war by the United States Government.

According to the usual procedure a Conference Committee was formed of members of both Houses, in equal number, to settle the difficulty.

The Bill which resulted from the Conference Committee's work eliminated the exemption to ships engaged in foreign trade, but maintained it for the coastwise trade.

This was a signal victory of the Spirit of Respect for Treaties. The exemption of coastwise trade had not the same character of an open violation of treaty. Such a ruling could appear legitimate under certain considerations, whereas the other ruling as to foreign trade would have been an open, flagrant and unjustifiable violation from every point of view.

Though the Conference Committee Bill was a better Bill than that of the Senate, the new Bill was nevertheless a violation of the treaty, though, as we shall see, under a more disguised form.

On the 16th of August the London *Daily Express* published an interview which the Paris correspondent of that paper had requested of me.

In that interview I suggested an appeal to the Supreme Court of the United States, owing to the violation of the Hay-Bunau-Varilla Treaty by the new law.

President Taft, who, in his message of December 1911, had so formally

defended the right for the United States to exempt certain American ships from tolls, but who had abandoned this attitude on the 12th of February, as is shown by Mr. Stimson's declaration, appeared to be struck with grave doubts when he saw his first ideas carried out in a Bill accepted by the Conference Committee of both Houses.

In a special message of August 19 he recommended Congress to consider the Bill afresh and to introduce in it a disposition allowing foreigners to test the validity of the law before the Supreme Court.

The President thereby clearly revealed his own doubts. He expressed, however, his conviction that the Bill proposed did not violate the Hay-Pauncefote Treaty!

Such a suggestion on the part of Mr. Taft, though inspired by the most honourable scruples, was in singular contradiction to that which he had affirmed to be his own view. It was not welcomed by either House.

On the 21st of August the Committee on Interoceanic Canals of the Senate rejected the proposition of the President, while the Committee of the House did not even think necessary to take it into consideration.

Mr. Taft appeared to be very much mortified. It was thought that he would veto the law. He signed it, however, on August 24, 1912.

At the same time Mr. Taft, wishing to justify his action, published a memorandum in which he expressed strong condemnation of the English protest.

He based his argument principally on the fact that the English protest, being made against any exemption or any reimbursement of tolls, would lead to the absurd conclusion that the United States had become deprived, because they had constructed the Canal, of a natural right of subsidising their sea trade.

After the proclamation of the law, protests were raised in England as well as in the United States.

Certain minds, however, were led to consider the exemption of tolls as legitimate, if restricted to the coastwise trade.

A general movement prompted public opinion in England to demand arbitration, but just a contrary movement took place in America.

The latter tendency was marked by an article of the *Tribune*, a semi-official organ of the American Government. On Thursday the 29th of August the *Tribune* announced that the President would refuse to submit the question to arbitration.

The moment had come to re-establish the debate on its normal basis. There was a great danger that it would lead to an impossible situation, owing to the erroneous conceptions which each party maintained as to the extent of its rights and owing to the strained relations resulting therefrom between the two great nations.

CHAPTER III

THE LETTERS TO THE "SHIPPING WORLD" AND TO THE "SUN"

IT was in these circumstances that I began the series of the three above-mentioned letters to the *Shipping World.* I now reproduce them, together with the letter to the *New York Sun.*

FIRST LETTER TO THE "SHIPPING WORLD," PUBLISHED AUGUST 28, 1912 [1]

"SIR,—

"It is announced that President Taft has signed the law fixing the tolls on the Panama Canal.

"It is a victory of the sense of justice of a great nation, as the law does not confer any privilege to any flag where there is a commercial competition between the nations, as was first intended.

"It seems, therefore, at first glance, that the spirit, if not the letter, of the Hay-Pauncefote Treaty and of the Hay-Bunau-Varilla Treaty is respected, and this is the view you took in your last issue from a practical standpoint.

"I think, however, that it is not the case. American public opinion, which has condemned the open violation of these treaties and brought about the actual relatively satisfactory measure, must make a new effort to set everything right.

"Let me quote again the Article III of the Hay-Pauncefote Treaty, which stipulation is explicitly made a condition of the grant of the Canal rights in the Hay-Bunau-Varilla Treaty.

'Art. III

'The United States adopts, as a basis of the neutralisation of such ship canal, the following Rules, substantially as embodied in the Convention of Constantinople, signed October 28, 1888, for the free navigation of the Suez Canal, that is to say :—

'(1) The Canal shall be free and open to the vessels of commerce and of war of all nations observing these Rules, on terms of entire equality, so that there shall be no discriminations against any such nation, or its citizens or subjects, in respect of the conditions or charges of traffic, or otherwise. Such conditions or charges of traffic shall be just and equitable.'

[1] By printer's error a paragraph was omitted in the reproduction of my letter. I reinstate it.

"The law just signed grants free passage to American ships engaged in American coastwise traffic, and imposes tolls on all other ships, whether American or not, using the Canal.

"Therefore the Canal will not be open on terms of entire equality to the vessels of all nations observing the Rules of Constantinople.

"This is obvious. But the defenders of the law can say for its justification: 'The equality is stipulated only in the intention of preventing discrimination. As no foreign ships can engage in American coastwise trade, there can be no discrimination against them, whatever be the tolls on vessels engaged in this privileged and exclusive trade.' The defenders of the law conclude: 'The treaties are not violated because the intention, in view of which the equality of charges was stipulated, is completely respected.'

"I must say that this argument would satisfy me if nothing had been added to the conditions I have just examined. But there is something, very short, though very important, besides.

"The last sentence of the paragraph quoted above shows that the free passage of the American coastwise ships is, indeed, a violation of the spirit as it obviously is of the letter of this stipulation.

"It reads: 'The charges shall be just and equitable.'

"A public entity, as the United States is, cannot operate a public and universal service in a commercial spirit, that is, in view of profits.

"The stipulation referred to, therefore, means that the charges shall be such as to cover the expenses of operation, and those of the interest and reimbursement of the capital invested.

"There can be no other conception of the terms 'just and equitable.'

"It follows that if a large part of the trade is allowed to pass free, the total amount of tolls collected will be diminished to a large extent. The consequence is that the universal trade will be in the future unduly taxed on account of this suppression of a part of the earning power of the Canal. This consideration clearly shows that if the spirit of the treaties is not violated by the new law on the subject of discrimination, it is manifestly violated on the other and not less important question of the 'justice and equity of taxes' which the 'terms of entire equality' were to guarantee.

"The privilege of a free passage thus given to American coastwise trade is thereby shown to violate not only the letter, but also the spirit, of the Hay-Pauncefote and Hay-Bunau-Varilla Treaties.

"The United States is the trustee of humanity in this great work. The law just promulgated gives her the unenviable position of a trustee using a part of the proceeds of the funds of the trusteeship in favour of his family.

"Redress must be sought against such an abuse.

"The only way for redress the Hay-Pauncefote Treaty offers is arbitration (war being out of the question). It is to be hoped that a more correct view of the intolerable attitude taken will lead the President and the Senate of the United States to accept it.

"If it was refused, the Hay-Bunau-Varilla Treaty might lead to another tribunal: the Supreme Court of the United States. This high Court has the power to break any law which is unconstitutional. The constitution declares treaties to be the supreme laws of the land. However, the Supreme Court considers a political treaty as abrogated when a subsequent law violates it. But the Hay-Bunau-Varilla Treaty is not a political treaty as the Hay-Pauncefote Treaty is. It is the title of property of the Canal. Will the Supreme Court admit that a subsequent law should violate a formal condition of the title of property of the Panama Canal, and thereby imperil this title itself, which the constitution declares supreme so long as it is not

abrogated ? The Supreme Court would have either to break the law or to break totally or partially the title of property.

"Whatever may be the outcome of such a discussion, it will throw the light on this grave subject.

"The people of the United States will be able to see more clearly the question, and to repeat for themselves what was formally said to Colombia when she was making an abusive use of her supreme power in the Canal question : 'Sovereignty has its rights, but it has also its duties.'

"Very truly yours,

"P. BUNAU-VARILLA.

"53 *Avenue d'Iena, Paris,*
"*August* 24, 1912."

The objection to the Panama Tolls law based on the violation of the Rule of "Justice and Equity" of Tolls was entirely new.

It made a considerable impression on public opinion in England and on the Continent, because it entirely annihilated the arguments commonly presented in America to justify the measure.

It soon became the officially accepted theory.[1]

The papers of September 5 reproduced a letter said to have been sent by Sir Edward Grey, Secretary of State for Foreign Affairs, to the Chamber of Newcastle and Gateshead, and read by the Secretary of the Chamber.

This letter contained a passage reproduced textually from my letter published in the *Shipping World*. I take it as given by the *Daily News and Leader* of September 5 and also by the *Daily Mail* of same date :

It follows that if a large part of this trade were allowed to pass free, the total amount of tolls collected would be diminished to a large extent, and as a consequence the general trade would in future be unduly taxed on account of the suppression of part of the earning power of the Canal.

SECOND LETTER TO THE "SHIPPING WORLD," PUBLISHED SEPTEMBER 4, 1912

"SIR,—

"I have received many queries since my letter published in your last Wednesday's issue, and the subsequent expression of my views on the Panama tolls question as given by *The Times* of yesterday.

[1] Since writing this chapter a new protest has been made by Great Britain against the Panama Tolls Law and transmitted on November 14, 1912, to the American Government. It was published on the 9th of December as a White Paper. I extract the following lines from the abstract as given by the *Daily Mail* of December 10, 1912. It entirely confirms the above statement.

"UNFAIR BURDEN

"He [Sir Edward Grey] shows that if any class of vessels is exempted from the Canal dues (as the United States claim to exempt American vessels) in such a way that no receipts from such ships are taken into account in the income of the Canal, there is no guarantee that vessels upon which the tolls are levied are not being made to pay more than their fair share of 'upkeep'—and thus an unfair burden may be imposed on British Shipping."

"In answering some of them through your kind hospitality I am contributing to exhibit the very clear principles which dominate the question, and which cannot fail to appeal to the sense of justice of the American nation, and of the whole world, when completely understood.

"Of course, it will be necessary to wait until the fever of the actual debate is over, a fever which is complicated by the Presidential election fever in America.

"Some American friends have been surprised at my contention that the rule—the 'charges shall be just and equitable'—meant, if applied to a political entity, no commercial profit. It is, however, the case.

"Let us suppose that after receiving the grant of the concessionary rights, America had entrusted to a stock company, such as the Suez Canal Company, the 'construction, maintenance, operation, and sanitation' of the Panama Canal.

"In such case the charges would have been fixed not only for reimbursing 'the expenses of operation (general government and military expenses excluded), and the interest as well as the gradual reimbursement of the capital invested either for constructing the Canal, or for covering the deficiencies of the first years of operation,' but also for giving a legitimate profit to the shareholders. Such profit would have been the just compensation of the risk entailed in collecting the funds for such a long and difficult enterprise, and in satisfying the conditions of the contract.

"But the United States has preferred to act direct, and to construct, maintain, operate and sanitate by her own forces. Therefore the charges, if they are to remain just and equitable, must be calculated according to the rule hereabove placed between quotations, without taking into account any profit to an entity which has not been used, and for services which have not been rendered.

"By way of example, let us admit that such a stock company had been formed, and that it had based its share and bond capital on an expenditure of £27,941,040 (the estimates of the actual Canal in 1906). They would have a few years after discovered the expenditure to be £59,553,200 (the revised estimates of the actual Canal in 1909).

"The profits on the operation of the Canal would have been, for the share capital, the legitimate payment of the enormous risks shown by these figures. But the United States has been exposed to no such risks. She has simply issued more Government bonds. No special compensation is due to her, because the interests on the surplus of bonds suffice to settle the matter.

"The United States has not acted as a contractor, and cannot be treated thus in the matter of commercial profits. She has acted as a mandatory, as a gratuitous mandatory, in the interest of collective civilisation.

"This is how President Roosevelt, in his Message of January 4, 1904, expressed it: *If ever a Government could be said to have received a mandate from civilisation to effect an object, the accomplishment of which was demanded in the interest of mankind, the United States holds that position with regard to the interoceanic Canal.*

"The principle of the gratuity of such a mandate is not new. In the French law any mandate is gratuitous by nature. In international law the same principle of gratuity I have just explained is formally expressed in the international agreement referring to the Conventional Basin of the Congo. Any charges for the use of any public works, railways and others, operated by a government, in this quasi-international domain, must cover only the expenses of operation and of the interest and reimbursement of capital invested.

"But it may be asked: 'What would be the advantage of an entity such as the United States undertaking the construction of the Canal without a commercial profit in the end?'

"If a political entity cannot for such an international work obtain commercial profits it finds its remuneration in its own sphere. The enormous compensation found by the United States in the political field is ample to remunerate her. She holds the key of the gate between the two oceans, and her two fleets are one on that account. She enjoys besides the enormous increase of importance of her Pacific States, thanks to the use of the Canal, on equal terms with other nations.

"The question of an equal repartition of the cost of operation, as well as of the interest and reimbursement of capital invested, *plus* a taxation for the Government expenses expressly entailed by the Canal, between all ships using the Canals, without any exception for any cause whatever, is on what the whole matter hinges.

"As I expressed it to the correspondent of *The Times*, the basic law of the operation is in Article 18 of the Hay-Bunau-Varilla Treaty. This treaty refers to the Hay-Pauncefote Treaty, which, in its turn, refers to the Convention of Constantinople of 1888.

"Therefore the conditions to which the operation of the Panama Canal is submitted by the treaty granting the concession to the United States are the Rules of the Convention of Constantinople, made for the operation of the Suez Canal.

"When this will be perceived by public opinion the solution will immediately become obvious. It will consist in clearing the rule of Constantinople —the 'charges shall be just and equitable'—so as to adapt it to a political entity. This may be the object of a mutual agreement between Great Britain and the United States, or if not possible, submitted to an arbitration of a Power not interested in sea questions—as Switzerland, for example. In such case the arbitration can scarcely fail to be decided along the impartial lines traced in this letter. So long as this will not be made clear the discussion will go on bearing lateral issues.

"The cardinal American theory will be: 'We cannot be shorn, because we have built the Panama Canal, of a natural right. No treaty can prevent us from subsidising our commerce as we please.'

"The cardinal British theory will be: 'There can be no discrimination, either in an open way by reduction on tolls on American ships or in a hidden way by reimbursement of such tolls, that is, by rebates miscalled subsidies, without contradicting the letter and the spirit of a formal treaty.'

"Both these grievances will disappear as soon as the divisory line is traced between the political body, the United States, acting as the operator of the Canal, according to *the implicit mandate of civilisation in the interest of mankind*, and to the explicit Rules of the Convention of Constantinople, on one side, and the political body, the United States, acting as a nation in her entire freedom and independence at home, on the other side.

"Once the line traced and the ships of all nations, including American, whether of the coastwise trade or of any other trade, paying just and equitable charges according to the definition hereabove given, the United States will have faithfully accomplished her great mandate.

"She will then be perfectly free to reimburse, in totality or in part, acting in her capacity of nation, if she thinks fit, the tolls paid by American ships. She will be at liberty to prohibit certain of her own corporations to use the Canal. It will be a domestic affair, entirely independent of her capacity as operator of the Canal.

"The Hay-Pauncefote Treaty will be then scrupulously respected, as well as the two international agreements it connects, the Hay-Bunau-Varilla Treaty and the Convention of Constantinople. The obedience to these three interdependent treaties will result from the fact that such reimbursement of tolls, in totality or in part, will then have no character whatever of a *rebate*. The money paid by the non-American clients of the Canal will not thus be employed to pay American subsidies or military expenditure in the neighbourhood of the Canal for the defence of the American Empire.

"To conclude, the Convention of Constantinople wants all ships to pay their proportional share of the Canal expenses, but of the Canal expenses only, and nothing more. This is what the Hay-Pauncefote Treaty requires; this is what the Hay-Bunau-Varilla Treaty stipulates.

"Outside of this focused conception there is nothing but error and consequent violence in thought, if not in fact.

"The magnificent work of civilisation executed at Panama will bring nations nearer one another.

"Let us not allow error to separate them when science unites the oceans.

"Very truly yours,

"P. BUNAU-VARILLA.

"53 *Avenue d'Iena, Paris,*
"*August* 31, 1912."

This precise theory of the rights and duties of the United States solved the conflict.

It admitted the thesis of Mr. Taft formulated on August 24, to the effect that the United States could not be deprived of the natural right of subsidising her commercial sea trade.

But it maintained, at the same time, that the use of this natural right would be illegitimate if the subsidies were not drawn from the American treasury, a result to which the law approved by Mr. Taft fatally tended owing to the development of the traffic.

The theory acquiesced, furthermore, in the British thesis to the effect that the payment of tolls could not be suppressed in a general way by reimbursement or otherwise.

But it maintained, at the same time, that this exemption of American ships through reimbursement ceased to be illegitimate if there resulted from it no supplementary load for the Foreign ships.

The *Liberte* gave a telegraphic account of the impression produced in London by this second letter:

"In political circles as well as in commercial circles there is much comment on the letter addressed to the *Shipping World* by M. Philippe Bunau-Varilla with regard to the American claims as to operation of the Panama Canal.

"The line of argument of M. Bunau-Varilla is regarded here as very striking, principally because of the parallel instituted between the rights and duties of the operator of Panama, and the rights and duties of the operator of Suez, the traffic charges having to be just and equitable, in accordance with the implicit mandate conferred

by civilisation, and also because of the explicit rules formulated at Constantinople."

The *Shipping World* likewise commented on my letter. It concluded its comments as follows :

"But every student of this question, and certainly every shipowner, should read every word of M. Bunau-Varilla's letter, which, in our opinion, is the most illuminating and convincing pronouncement in respect of the Panama Canal difficulty that has been published or spoken in the world's press or the United States Senate."

At about this time, a theory based on the narrow interpretation of the letter of the Hay-Pauncefote Treaty appeared in the *Berliner Tageblatt*, over the signature of a high authority in international law.

Once more error was about to penetrate into the logical structure that I had erected.

I thought it necessary to send a third letter to the *Shipping World.*

THIRD LETTER TO THE "SHIPPING WORLD," PUBLISHED SEPTEMBER 11, 1912

"SIR,—

"Various signs lead to the belief that the question of the Panama tolls is now entering a new phase.

"It is significant to see President Taft declaring before the Atlantic Deeper Waterway Association yesterday : *We are building the Canal for the benefit of the whole world.*

"Here we have a recognition of the principle that the United States is acting in the Panama question, as President Roosevelt proclaimed it at the outset, as the *mandatory of civilisation.*

"The obligation resulting from this mandate is to distribute equally, in proportion to the tonnage between all ships using the Canal, without any exception whatever for flags, nature of trade, or affectation of ships, the yearly cost entailed by the construction or operation of the Canal for the American Treasury.

"This is the common limit at which the two British and American theories meet—the theory of the respect of the treaties and the theory of the liberty for any nation of subsidising her own shipping.

"After accomplishing clearly and faithfully her great mandate, the United States will be free to reimburse tolls to certain of her ships, because, as I said already, such reimbursement will not be a rebate, because the Treasury from which such reimbursement will come will not have been filled with the money of other shippers.

"When it will be clearly seen in America that the Hay-Pauncefote Treaty so understood does not infringe upon the natural and essential rights of the United States at home, but simply enunciates a simple rule of justice, all question about its constitutionality will vanish. Nobody will any more doubt the power of Secretary Hay to sign a treaty which, after all, is limited to express what ought to be a truism of international law and of natural equity.

"I would have no reason to write to you this letter if I had but to repeat thus what was in my preceding ones.

"I am, however, prompted to do so in order to protest against a theory which has been widely reported by the Press these last days.

"It appeared in the *Berliner Tageblatt*, and was attributed to Dr. Wilhelm Kaufmann, Professor of International Law at the University of Berlin.

"The authority attached to the name may gravely mislead many minds on the authority they should attach to the theory.

"Dr. Kaufmann asserts that the Convention of Constantinople is so binding upon the United States, through the Hay-Pauncefote Treaty, that she is forever, and under any condition, deprived of any capacity to subsidise her own ships if they pass the Panama Canal. The Professor further declares that the United States must prohibit the passage to any foreign ship if subsidised by its own country. Finally, he says that the prohibition to American railroad-owned ships is a just application of the Rules of Constantinople, because such ships are thus subsidised by private enterprises, and therefore not in conditions of equality with others.

"This is a totally wrong view of the principle of equality proclaimed by the Convention of Constantinople.

"If it were right, the Convention would be violated every day of the year on the Suez Canal. Every day ships pass which are subsidised by their Governments under one form or another. The form said to be adopted by the Russian Government is the reimbursement pure and simple of the tolls.

"Never has anybody found in such facts, known all over the world, the slightest violation of the Rules of Constantinople, except Professor Kaufmann. Nobody ever will when the learned professor will have recognised his error.

"It is good to invoke the Convention of Constantinople, because, as I said to the correspondent of *The Times*, it is its spirit which furnishes us with the thread of Ariadne which leads us out of the labyrinth of the Panama tolls.

"But it is bad to invoke it wrongly.

"It was never dreamed in this Convention to require between the ships an equality which does not belong to this world.

"The Convention has not given to the operator of the Canal the right, nor the duty, of investigating, when a ship comes in, what are the shareholders of its company, if among them is a railroad or any other person physical or moral, if it is subsidised by a government or by private interests, if the conditions under which it trades ensure entire equality with the next ship coming in.

"It would have led the operator of the Canal to a financial anthropometry of his clients which would have baffled the resources of the Bertillon system.

"No! It is not the equality which Dr. Kaufmann has imagined which was asserted by the Convention of Constantinople.

"It is not the equality as to their financial resources at home.

"It is the equality of terms and conditions of treatment of ships in the use of the Canal, whatever may be their flag, their affectation, whether military, commercial, or for pleasure purposes, their origin or their destination.

"*It is the equality which will ensure a just and proportional distribution, on all ships using the Canal without distinction, of the cost of operation, of the interest and reimbursement of capital invested,* and also of the profit to the shareholders if the operation is entrusted to a commercial entity, such as a stock company working for profits.

"This is, I repeat, the spirit of the Rules of Constantinople, which governs sovereignly the question of the Panama tolls, because it is a principle of superior equity, because it has been solemnly asserted in the Hay-Pauncefote Treaty as a condition made by Great Britain to abandonment of her quasi-condominium with the United States of the Interoceanic Canal; because it has been the condition of the grant of the right of constructing and operating the Panama Canal in the Hay-Bunau-Varilla Treaty.

"Very truly yours,
"P. BUNAU-VARILLA.

"53 *Avenue d'Iena, Paris,*
"*September* 7, 1912."

LETTER TO THE "NEW YORK SUN," PUBLISHED SEPTEMBER 19, 1912

The first letter to the *Shipping World* was cabled to America in a condensed form by the news agencies.

The *New York Sun* commented on it in a caustic tone. It said in substance that if America had received a trusteeship to build the Canal, the proceeds thus far had been nothing but debts.

Eager to explain to the American public the exact meaning of my words, I sent the following letter, which was immediately published by the *Sun* with its customary fairness.

It was presented to the public as follows:

"THE TRUSTEE OF HUMANITY

"M. PHILIPPE BUNAU-VARILLA ON THE DUTY OF THE UNITED STATES AS TO THE CANAL

"*To the Editor of the Sun*

"SIR,—

"I have read the editorial article in *The Sun* of August 31 last. If I had been misled by romantic imagination there would be no hand I would welcome as much as that of the editor of *The Sun* to bring me back to reality.

"I owe so much to that hand that I cannot think of anything it can write which could make me cease to remain its debtor. It was the only one which spontaneously and generously was extended to me in the press when I fought the errors of the Nicaragua plan.

"Without its powerful support I sincerely think that Panama would be to-day dead and forgotten instead of being on the eve of its eternal triumph.

"This hand has struck me. It was the kindest and softest of hits, but it was a hit all the same. I do not object. There would be no light without shock.

"My answer to the editor of *The Sun* is: Strike, but listen.

"I said that the United States is 'the trustee of humanity' in Panama, and the editor of *The Sun* asks if I borrowed this expression from Mr. Jaurès and Mr. Hervé. I do not read their works. I am too much of an engineer to study the architecture of their castles built of the moving foundations of the clouds. I abhor foundations which are not substantial and stable; and my dislike for the Gatun Dam is an example of this disposition.

" I employed this expression because, when we come to money questions, it focuses better than any other the real conception every high-minded man always had of the part of the United States in the Canal undertaking.

" Some months before the beginning of the works did not the President of the United States, Mr. Roosevelt, say in his message of January 4, 1904 :

" ' If ever a Government could be said to have received a mandate from civilisation to effect an object the accomplishment of which was demanded in the interest of mankind, the United States holds that position with regard to the Interoceanic Canal ' ?

" Some months before the completion of the works did not the President of the United States, Mr. Taft, say before the Atlantic Deeper Waterways Association, September 6 : ' We are building the Canal for the benefit of the world ' ?

" Have not all the nations of the globe expressed by the immediate recognition of the Republic of Panama that they condemned the narrow idea of Colombia of exacting a material profit from an enterprise which the greatest republic of the earth declared itself ready to accomplish for the ' benefit of the world ' and as a ' mandatory of civilisation ' ?

" Is this not the solid, stable, and immovable foundation of the noble trusteeship of which I spoke ?

" ' Who shouldered the expense ? ' asks the editor of *The Sun.*

" No doubt it is the United States; but it was also the United States that prohibited the other nations to take their share of them.

" We can see in the same message of 1904 that in 1889 the Senate of the United States passed in executive session, with only three votes dissenting, a resolution declaring that ' the Government of the United States will look with serious concern and disapproval upon any connection of any European Government with the construction of any ship canal across the Isthmus of Darien and Central America.'

" It is therefore the United States that, in assuming this great mandate, declared that she wanted to be alone in accomplishing it.

" She took the initiative of the trusteeship under the condition that she would alone advance its capital. In so doing she implicitly again declared that she would reimburse herself on the proceeds, but that she would not deviate a part of them to her own advantage.

" We are now reaching the last phase.

" Will the mandate of civilisation be fulfilled ? Will the Canal have really been constructed for the benefit of the world ? Will the pledged word successively given by two Presidents of the United States be kept ?

" Will the Canal, on the contrary, be operated in order to derive at the cost of the world subsidies to the shipping or to the military expenditures of the United States ?

" If it is the second case it will be a great moral disaster for the world, a disaster infinitely greater than the material mass of money thus deviated from its proper channel by false assertions of one of the greatest members of the family of nations.

" As the matter has been obscured by confusing discussions on the real meaning of the Hay-Pauncefote Treaty, I tried to explain it in the two letters published by *The Shipping World* of August 28 and September 4 last. I said, and I repeat, because it clearly expresses the situation, that in such a case the United States would be ' in the unenviable position of a trustee employing the proceeds of the funds of his trusteeship for the benefit of his family.'

" I sincerely believe that only an insignificant fraction of those who laboured for the adoption of the actual toll law realised what iniquity it would

entail. I used the expression just repeated in order to show to the others its real significance.

"Some people may think that it is but a theoretical affair, and that the consequences of injustice will be felt in a very distant future only.

"They are mistaken; the consequences of injustice will be immediate.

"The cost of maintainence and operation of the Canal was estimated at $2,000,000 by the Isthmian Canal Commission. The interest at three per cent. on a total expenditure of approximately $400,000,000 will be $12,000,000.

"The total yearly earning necessary to meet these two items will be $14,000,000.

"If the Canal is operated according to the natural principles of justice and to the solemn engagements recalled, at the legal rate of $1·25 for all ships using it, 11,200,000 tons will be necessary to cover all the expenses.

"In Senate Document 575, containing the preliminary statement by Mr. Emory Johnson, Special Commissioner on Panama Traffic and Tolls, it is stated that the traffic ready to pass the canal in 1914–15 is 10,500,000 tons.

"This shows that the equilibrium between expenditure and earnings will be reached from the start. But of course there will be a large deficiency if the earning power is restricted by the grant of free passages to certain American ships.

"Ten years after the opening the traffic is estimated at 17,000,000 tons, without considering the increase due to the Canal itself.

"It is a very modest appreciation to admit 5,000,000 tons surplus on that account.

"Therefore a minimum of 22,000,000 tons can be expected in 1925 with reasonable certainty.

"If the ships granted free passage constitute half of the tonnage the other ships will still pay $1·25 a ton when they should pay $0·625.

"The shipping of the world will pay fourteen million dollars when it owes only seven. The surplus unjustly exacted, say seven million dollars, will be attributed to American shipping as an indirect subsidy. This will be the amount unlawfully raised on the foreign shippers for the tenth year, but it will have begun from the very second year of operation.

"I need not dwell upon the enormous increase of the sums levied unjustly on the foreign shipping after twenty, thirty years, etc., of operation if the original tax is perpetuated. No American interest will ever be moved to obtain its reduction.

"This is the whole question raised by the violation of the Hay-Pauncefote treaty.

"There is no other.

"Once her mandate was accomplished and her expenses of interest and operation covered by their just re-partition on all ships using the canal the United States would be perfectly free to grant subsidies and to reimburse the taxes paid to any ships she likes. She would be free to do so because she would have accomplished her treaty and moral obligations and because she would not pay these subsidies with money which does not belong to her, with the money of the foreign shippers.

"This is the whole question of the Hay-Pauncefote Treaty.

"It is not a political question; it is purely and simply a question of property. To violate the Hay-Bunau-Varilla and the Hay-Pauncefote Treaties results in the denial of the principles of property.

"Will the United States follow the noble line of advanced civilisation of

which she has been hitherto the main exponent? Will she show herself still adhering to the high standard of international morality which made her reimburse the non-employed part of the Chinese indemnity?

"Will she on the contrary break a solemn treaty, the Hay-Pauncefote Treaty, which contains after all only the enunciation of a simple principle of vulgar and obvious equity?

"Will she on the contrary break her title of property to the canal rights, the Hay-Bunau-Varilla Treaty, which made of the observation of this principle of equity an essential condition of the grant of said rights?

"Will she on the contrary introduce in international law this new principle that a political action can suppress a part of the natural rights of property of individuals?

"Will she, in the twentieth century and for the satisfaction of the appetites of a few, re-establish these ransoms on the peaceful users of the avenues of trade which made the feudal rights in Germany detestable to humanity and led to stigmatise by the qualification of robber barons those who enforced them?

"No; the United States will not step backward. It is practically the sole judge in her case against humanity, and I have complete confidence in her final sentence.

"In exposing the case clearly before her public opinion I shall have done my duty to her as her sincere and outspoken friend and admirer. *The Sun* once more will have lent me some of its powerful rays for so doing.

"P. BUNAU-VARILLA.

"*Paris, September* 10."

THE
FORTIFICATION OF THE STRAITS OF PANAMA

THE FORTIFICATION OF THE STRAITS OF PANAMA

WHEN the question was raised of erecting at both entrances of the Canal a vast system of permanent Fortifications, certain publicists declared that the right of the United States to take this step was to be found in the treaty of concession, the Hay-Bunau-Varilla Treaty.

This was a mistake which, in 1910, caused a courteous exchange of contradictory views between the editor of the *Journal des Débats* and the author of this book, one of the signatories of the said Treaty.

THE PERMANENT FORTIFICATIONS NOT FOR CANAL PROTECTION

I believe it necessary to clear up this question, because it is intimately linked with the rest of this book, and particularly with the sections entitled the "Key of the Secret of the Straits" and the "Panama Tolls."

If a vast system of permanent Fortifications were indispensable for the protection of the Canal itself, and in order to prevent its destruction in case of war, such a system could legitimately be considered as a necessary adjunct of the Canal; the expenditure entailed ought in such a case to form part of the expenses of working the Canal and be reimbursed by the ships using the Canal.

If, on the contrary, the fortifications are no more indispensable for its preservation than are the fortifications of Gibraltar or those of the Dardanelles for the protection of the corresponding maritime passages against destruction in time of war, then such fortifications do not form an integral part of the Canal proper; then they are only a base of action for the military power of the United States; then their creation or their maintenance in nowise concerns those who use the maritime highway. The expense entailed by them is exclusively incumbent on the American commonwealth.

If the Canal were destined to remain forever under the weak and vulnerable form of a lock canal, as was the erroneous idea of those who conceived the actual plan, the solution might be far from simple.

The necessity of an exceptional armour for the safety of the weak

points, such as the work of engineering art, locks, and dams, might be plausibly adduced.

But as the solutions I have given to the problem allow the realisation of a veritable Straits the aspect of the question is completely altered.

The explicit intention of the American Senate, the obvious facility, now demonstrated, of transforming this intention into tangible fact, the inevitable obligation of soon obtaining the final form of a "Straits," in order to satisfy the needs of the universal trade, all that enables us to throw a clear light on the Present and on the Future. The lock canal to-day is merely what it should always have been regarded, namely, a temporary maritime highway during the construction of the "Straits of Panama."

The construction of the invulnerable passage, the "Straits," may be considered even now to be under way.

No military work is required to protect such a passage once it is completed, for such a passage is just as independent of the destructive enterprises of man as is the Thracian Bosporus, for instance, or the Straits of Magellan.

It may be asked, however: Are not permanent Fortifications necessary for the protection of the vulnerable and weak organs of the Canal during the period of transformation?

If the reason for erecting a vast system of permanent Fortifications were merely the one just suggested, the Government of the United States should declare that it will raze the Fortifications, once the Straits are completed.

What reasonable being will ever admit the possibility of such a declaration? To ask the question is to answer it.

It is perfectly clear, therefore, that the object of the vast system of permanent Fortifications of the Isthmus is not the protection of a Canal which, within fifteen or twenty years, will be, by nature invulnerable.

This system of Fortifications is independent of the necessities of protection of the Canal proper; it results from the necessity of forbidding the access of the Atlantic to hostile fleets victorious in the Pacific.

The Fortifications are erected, not for the protection of the Canal, but for the defence of the United States.

The case is identical with those of the passages between the Black Sea and the Ægean. The object of the Fortifications at the entrance of the Bosporus, in the Black Sea, and of those at the entrance of the Dardanelles, is not the preservation of the maritime highways, which are invulnerable, but the defence of the Ottoman Empire.

It is obvious, therefore, that the construction of these forts, their armament, and the cost of their garrisons, have nothing to do with the

protection of the Canal works and consequently should not be paid for by the ships using the Canal. World trade has not to pay for them any more than a ship sailing from the Black Sea to the Ægean Sea is called upon to pay for the similar expenses of the Turkish Government.

The Origin of the Right of Fortifying the Isthmus

The technical considerations expounded in the "Key of the Secret of the Straits," and the consideration of International Law developed in the "Panama Tolls" permit the reader to obtain a somewhat clearer view of the origin, hitherto confused, of the right of the United States to fortify the Isthmus.

In the question of the Fortifications, as in the question of the reimbursement of the tolls to the American ships, it is necessary to distinguish in the acts of the United States two separate categories.

A part of these acts are those of the operator of the Canal, of the grantee of the concession; quite another part are those of the Great Power taking whatever measure it thinks fit for its military security.

The special right given to the operator of the Canal by the Hay-Bunau-Varilla Treaty of erecting fortifications for the protection of the Canal is entirely distinct and separate from the natural right of the Great Power to decide freely on what it thinks necessary for its defence.

The vast system of permanent Fortifications for which President Taft asked credits from Congress (for the first time on the 29th of April, 1910) had no relation to the Fortifications provided for in the Hay-Bunau-Varilla Treaty.

Here is the article of this Treaty, which obviously does not refer to a vast system of permanent Fortifications, but simply speaks of eventual fortifications of the same transitory class as the employment of military force which circumstances may oblige the United States to use against riots or revolutions.

Such Fortifications are bound by nature to be of secondary order and only of such a character as is found necessary to cope with local disturbances.

Art. 23

"If it should become necessary at any time to employ armed forces for the safety or protection of the Canal or of ships that make use of the same, or the railway and auxiliary works, the United States shall have the right, at all times and in its discretion, to use its police and its land and naval forces or to establish fortifications for these purposes."

If this Article is taken in connection with the first words of Article 18 of the same treaty—

"The Canal when constructed, and the entrances thereto, shall be neutral in perpetuity"—

it becomes obvious that the common intention of the High Contracting Parties was to leave out of consideration the question of a vast system of permanent Fortifications, which, as we have seen, has nothing to do with the protection of the Canal.

Though the word Fortifications occurs in the Hay-Bunau-Varilla Treaty, the situation as regards the permanent Fortifications is exactly the same as in the Hay-Pauncefote Treaty, where this word does not appear. In both cases this question is excluded from the Treaty. In the Hay-Bunau-Varilla Treaty it was implicitly excluded : in the Hay-Pauncefote Treaty it was explicitly excluded.

On the 5th of February, 1900, a treaty was signed between Mr. Hay and Sir Julian Pauncefote for the abrogation of the Clayton-Bulwer Treaty.

It was inspired in the matter of treatment of ships as the later Hay-Pauncefote Treaty of 18th of November, 1901, by the Convention of Constantinople made for the Suez Canal. But it was inspired by this convention also in the matter of Fortifications. It contained a clause explicitly prohibiting the erection of any such works.

This treaty was violently attacked and lapsed one year later, not having been ratified by the Senate of the United States.

The Senate's action cannot be criticised. Its opposition was legitimate from the point of view of the American essential interests.

The case of Suez cannot be assimilated to that of Panama from the point of view of the defence of the Power exercising sovereignty or protection over the land traversed by the Canal.

There is, neither for Turkey nor for Great Britain, any serious danger to be foreseen from the Far Eastern Seas, which a defenceless Suez Canal might render menacing for one or the other.

On the contrary, the Far East is a quarter from which a dangerous military rivalry to the United States might eventually appear. I refer to Japan.

This Power, formerly negligible, is to-day one of the most formidable elements of international politics. Its action will be exercised in this Pacific Ocean which President Roosevelt one day at Chicago said is bound to become, after the opening of the Panama Canal, an American lake.

The common aspiration of Japan and of America to the hegemony of the Pacific; the humiliation caused to Japan by the annexation to America of the Hawaii Islands, in reality a Japanese colony, in the last years of the nineteenth century; the mute irritation of the Japanese at the American annexation of the Philippines, the cradle of the Japanese race; the expressed irritation due to the conflict of interests in the struggle between Americans and Japanese for industrial

predominance in China; the deep resentment of a proud and military race at the doctrine of the open door for Americans in Asia, coupled with the doctrine of the closed door for Asiatics in America—all these grievances are slow fires, now smouldering under ashes, but from which may one day be developed a formidable conflagration.

The American Senate obeyed a legitimate and wise inspiration in refusing to ratify a treaty which prevented the United States from taking the military precautions necessary for her safety.

This necessary precaution was the erection of a vast system of permanent Fortifications in order to prevent a victorious hostile fleet from entering the Atlantic.

Great Britain agreed, after the rejection of the first Hay-Pauncefote Treaty (February 1900), to sign another one on the 18th of November, 1901. In the second treaty the prohibition as regards Fortifications was erased and not a word was pronounced on the subject.

Great Britain, therefore, by the withdrawal of this prohibition, expressed her silent acquiescence in the legitimacy of Fortifications for *the defence of the United States.*

Great Britain by this withdrawal formally expressed and explicitly declared that she admitted that the United States were forced to erect *permanent Fortifications for her own safety* in the neighbourhood of a Canal which, being neutral, had no need of such extraordinary measures for its protection and regular service in time of peace or of war.

She admitted that this clause of non-fortification, which the United States could accept as the operator of the Canal, was inadmissible from the point of view of her position as a Great Power directly exposed to certain dangers by the opening of the Canal.

The only way to deal with such a contradiction was to erase altogether the prohibition as to fortifying the Canal, and that was done by mutual consent.

If any doubt remained as to the true significance of this withdrawal it would be removed by the following document.

On the 27th of January, 1911, the New York *Sun* published the complete text of a memorandum which had been prepared by Mr. Hay to justify before the Senate in December 1901 the terms of the new Hay-Pauncefote Treaty and to show that these terms corresponded to the will of the Senate.

Its first lines read thus:

"The amendments of the Senate to the former treaty required . . . . that the rules of neutrality should not deprive the United States of the *right of defending herself and of maintaining public order.*"

The new Hay-Pauncefote Treaty gave the United States this double and necessary faculty by simply removing all allusion to the question of fortification.

When the Hay-Bunau-Varilla Treaty was drawn up, its signatories had not to consider the question of the defence of the United States, but they had to think of the maintenance of public order in a country exposed to riots and revolutions.

It is for the latter purpose only that every permission was given to the United States to use police, land, or naval forces, or to erect fortifications, at all times, if *at any time* it *should* become necessary, to *employ armed forces* for the *protection* of the Canal works or traffic.

But the other and main item mentioned in Mr. Hay's memorandum —the system of *Fortifications for defending the United States*—was left out of a treaty exclusively concerned with the operation of the Canal.

Such is the character of the fortifications provided for in the Hay-Bunau-Varilla Treaty for a neutral Canal.

"Water," says a proverb, "cannot rise higher than its spring."

For the very same reason, the origin of the right of erecting a vast system of Fortifications for the defence of the United States cannot take its origin in an article of the Hay-Bunau-Varilla Treaty, where only stipulations referring to the necessity of protecting a neutral canal were inserted.

The right of the United States to erect this vast system of Permanent Fortifications does not result, therefore, from the treaty granting her the concession of the Canal. It results from the superior right, as I have already shown, which any great nation has of taking the necessary measures for its safety when surrounding conditions change the earlier equilibrium.

Of course the United States uses, for this purpose, grounds and rights which were granted to her solely for the *protection* of a *neutral* canal.

The Republic of Panama alone could object to this extra contractual use of the concession given.

She would have shown bad grace in so doing after she had so fully enjoyed the inestimable advantages which the construction of the Canal and the protection of the United States have brought to her.

She has spontaneously acted as she was bound to do, and her Government has expressed its satisfaction with the use made of a part of the conceded territory for an object which the Hay-Bunau-Varilla Treaty considered no more than did the Hay-Pauncefote Treaty.

APPENDICES

APPENDIX A

EXPOSURE OF CERTAIN FALSEHOODS DEEPLY ROOTED IN VARIOUS MINDS

FIRST FALSEHOOD: THE OLD PANAMA CANAL COMPANY BORROWED $300,000,000—THE COMPANY NEVER EXPENDED MORE THAN EIGHTY ODD MILLION DOLLARS ON ITS WORKS, AND NOBODY KNOWS WHERE THE REST OF THE MONEY WENT

THE total amount of money paid by the public into the hands of the Company's cashier was $252,000,000. This sum was entrusted to the Company during its existence from 1881 to 1888.

The Sums of Money paid back to Subscribers

From that sum $47,600,000 were paid back to the public, either in the form of interest on bonds and shares, or as reimbursement of a part of the capital invested.

Therefore the net amount paid in by the public was $206,600,000.

Banking and Collateral Expenses

But subscriptions are not produced by spontaneous generation. It was necessary to set in motion the costly and complicated mechanisms of publicity and banking during a period of eight years.

The expenses entailed by share and bond issues were about seven per cent. of the sums cashed, say $16,600,000. Such expenses are regular and usual, even for the issue of French State bonds. The pro rata of costs varies with the difficulty of getting at the investor.

All this shows that the Company had only $190,000,000 to handle, instead of $300,000,000, as is generally reported.

Let us now examine what use was made of that sum.

The Purchase of the Panama Railroad

The concession which Lieut. Bonaparte Wyse had obtained from the Government of Colombia by the Law of May 18, 1878, was an unsound and incomplete one. Its effective validity depended on the goodwill of a foreign company, the Panama Railroad.

By a Law of August 16, 1868, Colombia had surrendered the right of granting the concession of a canal without the co-operation and consent of the said Company. Such co-operation and consent could

be forced upon the Company by a legal disposition akin to expropriation only in case the canal should not follow the general line of the railway.

But the Panama Canal could not be constructed anywhere but near and along the Panama Railroad. It followed that the concession of Bonaparte Wyse was valueless if the Panama Railroad refused its consent.

Among all the solutions of this problem the purchase of the shares of the Panama Railroad was the only practical one.

The Panama Canal Company had to choose between abandoning its enterprise and offering a tempting price to the bearers of these shares. They had been sold originally a long time before at $100 each. The Canal Company succeeded in acquiring about 68,000 out of the 70,000 outstanding shares and paid $250 for each of them. This absorbed $18,600,000.

The operation was legitimate and justifiable. If the *bonus* paid was high, it was by no means disproportionate to the important rights attached to the shares.

After these successive deductions the Company had only to justify the expenditure of $171,200,000.

From that sum $156,600,000 were employed for the works and $14,800,000 for the purchase of the Wyse concession, the administrative expenses at Paris, the constitution of the Company, the purchase of the Company's building in Paris, etc., etc.

The Sums which were spent for the Works

The $156,600,000 which went to the works were distributed as follows :

	$
Payments to Contractors and Workmen	88,600,000
Construction, houses of employees and workmen, workshops, storehouses, offices, wharves, etc., etc.	9,400,000
Purchase of plant and cost of its transportation	23,800,000
Erection and repairs of plant	6,000,000
Coal, oils, grease, etc.	5,800,000
Transportation inside the Isthmus and repair of buildings	3,200,000
Cost of hospital and chapels	1,800,000
Expropriation of properties	1,000,000
Soundings, etc.	400,000
Cost of administration and of verification of works	16,600,000
	$156,600,000

Such are the detailed items of expenditure in the various branches of the gigantic enterprise during the eight years of its life.

The conscientious examination of these various elements could have given the lie to the legend of extravagance with which it was desired to poison the public mind. Therefore only one of these figures was retained and made conspicuous: that of the payment to contractors and workmen. The others were wilfully and cynically forgotten. It was declared and believed that out of $300,000,000 paid into the cash-box of the Company only $88,800,000 could be traced to the works, and that the rest had vanished into unknown uses.

I hold no brief for the old Canal Company. One may discuss its decisions and criticise its acts. They may be judged as those of a Government having to wage a war in a distant and difficult country.

They may be appreciated as have been those connected with the conquest of Madagascar by France or the conquest of the Boer Republics by Great Britain.

Fair criticism is always useful, but it is a positive crime against the honour and the interest of any country to pervert truth as was done in this case. The fiendish aim of this campaign was to discourage the nation by persuading her that this noble and gigantic effort had been dictated by the lowest passions.

SECOND FALSEHOOD: A PLANT OF CONSIDERABLE IMPORTANCE WAS WASTED. IT WAS EITHER ABANDONED, WITHOUT BEING USED, IN THE VIRGIN FORESTS OF THE ISTHMUS OR BURIED UNDER THE EXCAVATED AND DUMPED GROUNDS

This assertion is completely false. Save for a few exceptions the plant of the Canal Company was chosen with excellent technical judgment. Everywhere it was maintained and kept with scrupulous care. Yet the falsehood persists. Let us see how it can have arisen.

As was only natural, owing to the extraordinary quantity of unknown factors involved in this stupendous creation, some errors were made in ordering the first machines. The plant once brought over and set to work, had to be abandoned on the spot when it was recognised to be unfit for the existing conditions.

In any other country this plant would have been sold. It was unrealisable in the Isthmus, where the cost of dismounting it and of shipping it back to Europe would have been greater than the price obtainable for such second-hand plant. To abandon useless machines in such a country is to condemn them to a rapid invasion by the exuberant tropical vegetation. How many travellers passing through the Isthmus and beholding this condemned plant have been led to believe it to be a good and normal plant left to fall into ruin by sheer carelessness?

How many such travellers have innocently contributed to propagate this error, and thus involuntarily lent a hand to calumny?

Negligible Quantities of the Plant brought to the Works and found Unfit for Use.—I do not estimate at more than six or seven per cent. of the whole plant brought to the Isthmus, that fraction which was subsequently found to be unadapted to the necessities of the works.

It is possible briefly to enumerate the machines in question. There were, first, some floating instruments brought by the contracting firm, Couvreux & Hersent, and which were too weak for the work required of them. There was also the dredging plant of the Franco-American Trading Company, which was entirely unfit for the work it had to carry out. This plant was abandoned by its proprietor, the above-named company, in the marshes of the Rio Grande on the Pacific side. As it was near the Panama Railroad line, and easily sighted from the trains, it has undoubtedly largely contributed to the formation of the mendacious legend to which I have alluded.

The general manager and promoter of this contracting company, M. de Sireuilh, had obtained the financial support of the banking firm of Seligman & Co., of New York. This firm was closely related to the house of the same name in Paris, whose head was Vice-President of the Panama Canal Company. These high connections did not prevent the Sireuilh Company from failing. Sireuilh died some months later. His widow, Mme. de Sireuilh, was soon afterwards entirely without resources. She came to Paris and there committed suicide.

As it was then the fashion to declare in print that all contractors of the Panama Canal had made prodigious fortunes, poor ruined and desperate Mme. de Sireuilh could not be taken for the widow of a Panama contractor. She was represented by the Paris papers as having fallen into misery owing to the depreciation of the shares and bonds of the Panama Canal.

Thus the failure of one of the contractors to fulfil his task, and the abandonment by him of his useless plant, was fiercely urged as proof of the Company's carelessness. The suicide of Mme. de Sireuilh, owing to the state of destitution into which she had fallen through her husband's incapacity to carry out his contract, was again used to vilify the Company's good name.

Wilful perversion of facts, as in the example I have just shown, was the constant method by which calumny established the strong foundations of the Panama legend.

Apart from these two groups of dredging plants furnished by two contractors, both of whom were ill-inspired, and who failed in their respective enterprises, there was scarcely any other useless or abandoned machinery.

It may, perhaps, be well, however, to rank among these about one hundred cars and half-a-dozen steam-shovels of the American type.

They had been brought out for the first attacks upon the Culebra Cut by an engineer of the name of Millet, who was familiar with American works. The plastic and sticky clay of the upper part of the Culebra Cut rendered this plant entirely unavailable. It had to be side-tracked and abandoned near the Culebra station, and was also no doubt a cause of erroneous criticisms by onlookers from trains.

These were the three main portions of the plant which were erroneously chosen and had to be left to their fate. I may likewise mention in this connection certain débris of old locomotives that had fallen from the embankments of the Panama Railroad. The American Railroad Company had left there the parts which could not be saved without spending more money than they were worth.

How many passengers on the trains must have imputed to the carelessness of the Canal Company these skeletons far antedating the first works of the Company!

Yet, contrary to the practice thus exposed, never did the Canal Company abandon a useful machine.

Whatever the cost and peril of raising a locomotive fallen from a high embankment, or stuck in a marsh, it was done.

It may be said that the legend of which I speak was entirely fabricated. If the Canal Company was guilty of anything it was generally of an excess of care, rather than of any neglect in the maintaining its plant in good order.

Proof of the Perfect Maintenance of the Company's Plant.—The best proof which can be given of this fact is the following. In 1912, while this book was being written, the best dredges now at work for the completion of the Canal are our old French dredges, brought to the Isthmus in 1885, more than a quarter of a century ago.

Great was the surprise of the American engineers when they found that these dredges, twenty years older than those they had ordered, were far superior in power, efficiency, and cost per yard to the so-called *modern* ones.

THIRD FALSEHOOD: ALL CONTRACTORS COULD REAP WHATEVER PROFITS THEY LIKED

The public is in general badly informed as to contracts for public works and as to the profits on such contracts.

The public is inclined to think that the estimates make it possible to foresee all the costs with extreme precision, and permit the allowance to the Contractor of a profit of ten or fifteen per cent. on their amount.

This is a mistake. The estimates for a given work reflect solely the theoretical conception of the engineer who establishes them. The margin which separates the estimates from the reality is great. It is composed, first, of the errors proper to the initial conception; and,

secondly, of the innumerable disturbing items which arise during the execution.

In fact, the material results are determined by an indefinite number of unexpected circumstances and new ideas which combine to destroy the provisions of the estimates.

It is not infrequent to see works that enrich a contractor who has undertaken them with a reduction of thirty-five per cent. on the prices fixed by the estimates, whereas other contractors may lose money with the grant of a bonus of ten per cent. on and above such prices.

The profession of contractor is based on the risky combination of Nature, men, and ideas.

The more violent and irregular the forces of Nature, the more probable are the chances either of heavy losses or of large profits.

At Panama out of Nine Great Contractors Four failed and Five were Successful.—The Panama Canal contractors did not escape this superior law. Out of nine great contractors who undertook large parts of the works, four failed and five were successful. And even out of these five lucky ones how many would have remained successful had not the fall in the value of silver brought them an unexpected profit? They were paid in gold in Paris per cubic metre excavated. For the same quantity of gold they could, owing to the decreased value of silver, obtain a larger number of *pesos* with which to pay the workmen.

Out of the four unsuccessful contracting firms one was judicially declared bankrupt, two others lost considerable money, and the fourth just balanced its accounts.

To be sure the works were enormous and their cost was measured in millions of dollars. It followed that even without an exaggerated percentage of profit the absolute value of the profits was very great when the chances happened to turn the right side for the contractor.

These contractors' profits, which were absolutely legitimate, were denounced as crimes after the downfall of the company. Naturally no attempt was ever made to compare the amount of their profits and the magnitude of the works executed as well as the difficulties overcome. To smooth the path for calumny it was declared that no works at all had been executed on the Isthmus.

The Accounts of the Contractors were Perfectly Correct.—The surveys and verifications made on the spot first by the receiver of the old company, and later by the new company, demonstrated that not a single cubic metre had been paid that had not been excavated and measured. But this part of the task of the receiver did not receive a single line of publicity. Everybody believed the rumour of calumny.

Only when the United States in their turn took up the works and verified what had been accomplished, slander was forced to surrender.

I no more hold a brief for all the Panama contractors than for the

old Canal Company. Some were inspired by considerations higher than those required for ordinary industrial operations. Certain among them considered themselves bound by obligations belonging to a higher level than those derived from their contracts proper. Certain among them gave the measure of their faith and of their devotion to duty by sharing personally the labours and the perils of the Isthmus. Others considered their work as an operation of a purely industrial order and were not handicapped by any more elevated considerations. In general, the interpretation of the contracts reflected the spirit of those who had constituted and had inspired the respective contracting firms. But the question is not there. Did the contracting firms establish their operations on loyal, precise, and sincere contracts, or did they not? Were the contracting firms held by a loyal, and rigorous administration to have received only what was stipulated in their contracts or were they not so held? To these questions one must answer roundly in the affirmative. The same answer was given by Justice except in the case of the Eiffel contract.

But it must be added that this isolated negative answer was made possible thanks only to a trick. The trick consisted in transforming into a gratuitous mandate an ordinary contract of public works. This was done in defiance of common sense as well as of the clear written stipulation of the contracts. Naturally the result was to convert into a misdemeanor a perfectly natural operation, namely, that of obtaining a profit from works made according to a clear contract.

The president of the court, Perivier, in making this transformation committed the most incredible breach of justice ever registered. For history this iniquity is an advantage. It bears testimony to the excessive desire to fling a victim to the excited mob. It bears testimony as well to the inability of justice to discover any reprehensible act in the defendants' technical management. When, in spite of every effort no misdemeanour could be discovered, a purely imaginary one had to be forged. The verdict of the court was to be broken several months later by a decree of the Supreme Court based on the Statute of Limitations. The sentence, however, subsists, as a demonstration that every possible effort was made to discover and expose a fault, but that no real illegality could be discovered which could legitimately be charged against any of the contractors.

FOURTH FALSEHOOD: THE PANAMA ENTERPRISE WAS BEGUN WITHOUT PRELIMINARY INVESTIGATION. OBSTACLES WERE FOUND DURING THE EXECUTION WHICH PRELIMINARY STUDIES WOULD HAVE REVEALED

This also is a complete error. *The preliminary investigation was complete and irreproachable.* The problem of digging a canal at sea-level between the two oceans, though a very complicated question

on account of the enormous mass of the works, is a simple one if considered as a whole.

The preliminary studies had to consist :

First, of a correct plan.

Second, of a correct establishment of the altitudes of the ground on the axis of the road between the two oceans;

Third, of a series of soundings on the axis, in order to determine the nature of the soil to be excavated;

Fourth, of a perfect knowledge of the characteristics of the hydrography of the Chagres river, the valley of which the Canal occupies from its eighth kilometre to its forty-fifth (the point of departure for the measurements being at Colon on the Atlantic.[1]

Such were the necessary data which the preliminary surveys had to furnish.

They were made with all the scientific rigour which could be desired.

Neither the works of the old company, nor the verifications of the new one, nor the works of the American Government have shown the slightest inaccuracy in the data furnished by these early surveys. The American engineers have expressed well-merited eulogy of these documents.

Real Nature of the Unknown Quantities of the Panama Problem. In reality what was unknown before the work was begun, could not be revealed by any preliminary studies. These unknown quantities were the cost of working for each cubic metre and the quantity it was possible to excavate per month. The elements which were the components of cost and quantity consisted in the series of difficulties which attend all works under the tropics : the alternations of soft, plastic clays with compact hard rocks; the nefarious influence of the diluvial rains; the rarity of labour, which had to be looked for among the black sugar-cane cultivators of the Antilles; and the effect of the yellow and malarial fevers on the general activity—in a word, the influence of these fevers on the effective usefulness of the white and black employees.

These were unknown factors which only protracted execution on a large scale could determine, and which preliminary studies were powerless to reveal.

It might almost have seemed justifiable to abandon the whole undertaking in presence of the probable enormity of these unknown difficulties. This, indeed, is what the American commissions had done in the period of studies which extended between 1869 and 1876. And this is what determined in 1876 their condemnation of Panama and their adoption of Nicaragua.

[1] The total length of the Canal was in the French project 75 kilometres, five of which were in the Bay of Panama. The length has been extended by five kilometres approximately in the American project now in execution.

Another method was bravely to open the fight against Nature, counting on the hoped-for solution as the result of the battle. Such was the attitude of M. de Lesseps.

This solution of the great problem was indeed given by the battle, but not exactly in the way expected.

The Solution of the Problem of the Opening of the Straits.—That solution I had the honour of discovering in 1885. It condemned the direct excavation of the sea-level canal by steam-shovels working in the dry soil, and substituted for that system an indirect method. This indirect method consisted in establishing first a lock canal, and later on in transforming it by dredging into a sea-level canal, or rather into the veritable "Straits of Panama."

That is the solution which the old company adopted in 1887 on my recommendation. It is also the one to which the American Government was obliged to revert in 1906. They have, indeed, proclaimed that they attempted solely to construct a perpetual lock canal. The speech that Senator Knox (since Secretary of State), made on behalf of the American administration before the Senate, has clearly demonstrated that the subsequent transformation into a strait is now the real basis of the actual project. It is this consideration alone which determined the adoption of the project by the American Senate in 1906. That was the second and final victory of the rational solution which I found in 1885 to be the real, but rather unexpected, outcome of the great war begun by M. de Lesseps on the Isthmus.

The Old Company correctly estimated the Characteristics of the Chagres Flow.—I should have nothing to add with regard to this fourth popular error if it did not appear worth while at this point, to refer briefly to the question of the course of the Chagres river and the date at which data on this subject were completely known.

The new company [1] always followed the tactics of maintaining strict silence with regard to everything which the old company had done. By their silence they accredited certain errors which calumny was free to develop and maintain.

It has been said that the old company always ignored the characteristics of the Chagres flow and that the new company was the first to take the initiative of the necessary measurements. It is indeed true that General Abbott has devoted many years in the service of the new Panama Company to the Chagres question. The distinguished American officer has performed his task in a very scientific spirit.

But all the results of his work went to confirm fully and explicitly the figures which are to be found in the report of M. Dingler, chief engineer of the old company, dated September 28, 1883.

The New Panama Company stated in 1899 that the flow of the

[1] Formed in 1894.

Chagres at Gamboa at the moments of highest registered floods (entrance of the Chagres in the zone occupied by the Canal) was 1638 cubic metres a second in November 1885; 1628 cubic metres a second in December 1888; and 1663 cubic metres a second in December 1890.

What was the figure given by M. Dingler, that is to say, by the old company, in 1883, sixteen years before this document? It was 1600 cubic metres a second for the exceptional floods.

The new Panama Company, after nine years of continuous measurements (1889 to 1898), gives 780 cubic metres a second as the measured flow of the ordinary floods at Gamboa. The approximate figure given by the old company, sixteen years before, was 665 cubic metres a second.

For the average flow from May to December the measurements of nine years (1889–98) under the auspices of the new company gave 123 cubic metres a second at Gamboa. The figure given by the old company sixteen years before was 134 cubic metres a second.

For the minimum dry season flow at Gamboa the measurements of nine years made by the new company gave eleven cubic metres a second. The figure adopted by the old company in 1883 was thirteen cubic metres a second.

Any person aware of the lack of rigorous precision of the measurements of river flows, will find the figures of the new company identical with those of the old one for the Gamboa station.

The same identity will be found for the figures referring to the other main hydrographic station of the Chagres, that of Bohio twenty-five kilometres lower down the valley.

On this point, as on all others, the activity of the new company served only to verify the data already accumulated by the old one. But the new company in this case, as in all others, did not fulfil its mission. Its mission should have been to stamp down calumny and to establish public confidence in Panama by exposing the truth in all its splendour. But they dared not do this. They were afraid of their own name. They shivered before the enormous mass of lying assertions under which the glorious works of the old company had been hidden from sight by hostile passions. They made no effort to controvert current legends; nay, by their cowardly silence they implicitly confirmed them. This was the cause of the final death of the Panama enterprise.

FIFTH FALSEHOOD: THE FRENCH TOOK NO PROPER SANITARY MEASURES ON THE ISTHMUS. YELLOW FEVER FORCED THE FIRST COMPANY TO STOP WORK. THE ELIMINATION OF THE DREAD DISEASE HAS DETERMINED THE SUCCESS OF THE AMERICANS

This false allegation is of relatively recent growth. It is widespread in the United States.

It is absolutely true to say that the yellow fever was a crushing burden for the old company. It is absolutely false to say that it was the cause of any interruption of work on the Canal either momentarily or permanently.

The Discovery of the Prophylaxy of Yellow Fever was made Twelve Years after the Downfall of the Old Company.—It is monumental stupidity to cast blame on the old company for not having taken the prophylactic measures with which the Americans so admirably stamped out yellow fever in Panama.

The new methods by which the yellow fever could be fought were revealed for the first time to the world at the Buffalo Exhibition in 1901.

At that date the old Panama company had been non-existent for twelve years.

The old company was powerless indeed to destroy yellow fever, because everybody then was totally ignorant of the principles on which the actual successful prophylaxy is based. Equally powerless were the Americans in Cuba, in 1899 and 1900, during the first two years of their occupation.

It was thought in American medical circles that this disease was due to the filth of tropical cities and to the uncleanliness of their inhabitants.

After having thoroughly cleansed Havana they looked for a decided fall in the death rate, but alas! a worse epidemic than ever burst out in 1900.

Fortunately, General Leonard Wood, then in command of the American troops, was formerly a medical officer.

He advised the American Government to take into consideration the theory which Carlos Finlay, a Havana doctor, had formulated eighteen years previously. He recommended the systematic continuation of those experiments on men which Carlos Finlay had at that time begun, but had been forced to abandon for humanitarian reasons in spite of the promising results they had given.

Discovery and Development of the Prophylaxy of Yellow Fever.—The origin of this great discovery is interesting.

In 1880, Laveran, a young physician of the French army, opened the period of successful war on tropical diseases by isolating the microbe of malaria.

The idea that mosquitoes had something to do with malaria is as old as the world. The discovery by Laveran of the material cause of the disease revived the idea of its transmission by mosquitoes. In the following year Carlos Finlay, who was reproducing in Havana Laveran's experiments, in company with Dr. Morado, conceived the idea that yellow fever was transmitted by a special kind of mosquito, the *culex fasciatus*, or *stegomyia*.

He began experimenting in order to obtain transmission of the disease from a yellow-fever patient to a healthy man, through the suspected mosquito.

Indifference, then hostility, finally arrested these experiments.

Fortunately, Carlos Finlay had not disappeared at the time of the American occupation. Seventeen years after his great, but neglected, discovery he sat as member of a medical board instituted by the Americans after their occupation of Havana.

Among the other members was Major Gorgas, who has since then made his name famous by redeeming, first Havana, then Panama, from the terrific scourge.

Major Gorgas first paid little attention to what Carlos Finlay said as to the origin of yellow fever. He has since had the courage to acknowledge publicly that he had been an opponent of Finlay until experiments showed how right the great Cuban scientist really was.

These experiments were conducted on the line of Finlay's old experiments by Walter Reed, J. Carrol, Agramonte, and Lazear.

Heroic men and women submitted themselves to the bite of mosquitoes infected by contact with a fever patient.

The consequences clearly established by these experiments were the following:

First: Neither filth, nor soiled linen play any part in the transmission or generation of yellow fever. The disease is exclusively due to mosquito bites.

Second: The female of the *culex fasciatus*, or *stegomyia*, is the only mosquito which can transmit yellow fever.

Third: The mosquito is never of itself spontaneously infectious.[1] It is only an agent of transmission.

Fourth: The mosquito becomes infectious only if it bites a patient within the three first days of the disease. It becomes so only twelve days after the mosquito has been in contact with the source of infection. It remains infectious for the rest of its life which is about two months and a half.

Discoveries of Doctors Marchoux and Simon at Rio de Janeiro. To these capital data furnished by the heroic experimentation of the American doctors a new one has been added by French doctors at Rio de Janeiro.

A mission was sent to Rio de Janeiro at the request of the Brazilian Government consisting of Doctors Marchoux and Simon. This mission has verified the findings of the American doctors, but it has further

[1] This conclusion is not adopted by MM. Marchoux and Simon. They had in Rio de Janeiro one case of yellow fever transmitted by a mosquito born from an egg laid by an infected mother. The case was mild.

established that the mosquito, when infectious, never bites during the daytime.

The danger of catching yellow fever is exclusively limited to the night. This point is of extreme importance for a traveller who is obliged to visit an area infected by yellow fever.

Practical Prophylactic Measures.—When these important discoveries were made, General Wood ordered the establishment of a system of defence, which was organised in Havana by Major Gorgas.

Whenever the existence of a case was declared, the patient was imprisoned in his room, an armed guard placed at the door, and the windows carefully screened. In the rest of the house and in neighbouring houses, eight grams of pyrethrum powder per cubic metre were burnt so as momentarily to asphyxiate all the mosquitoes. This done, all measures were taken to collect the inanimate but not yet dead mosquitoes and to destroy them. The same process was applied once the patient had been ill for three days. He then ceased to be a danger of infection for mosquitoes; he could be removed from his room and all mosquitoes there were asphyxiated, and then burnt.

The systematic application of this method by Major Gorgas caused the number of victims of yellow fever to be reduced in Havana to three in the year 1901–2, whereas it had been 745 in 1897–8 and 1885 in 1898–9, the general average having been 360 from 1890 to 1895.

This is the exact history of this great scientific discovery.

Though its origin is anterior to 1901 one may say that only since 1901 has it formed a part of the medical arsenal of man in his warfare against disease.

It is, therefore, sheer stupidity to reproach the old Panama company with not having made use of the discovery from 1880 to 1888.

It is better to quote the utterance of Major Gorgas. He has not only said that science could not in the days of the old company accomplish the same marvels as to-day; he has also stated that perhaps the Americans would not have endured with the same courage as the French the terrible losses they had to suffer.

I am convinced that if the yellow fever had not been conquered, the Americans would have bravely continued their fight they had begun against Nature.

The greatness of their task would have inspired heroic self-sacrifices, as the same sense of duty dictated their conduct to the French.

But it is probable that the American nation would not have tolerated that the heroes who had fought for her should be abused and dragged in the mire by calumniators at home.

At any rate the old company is entirely free from any reproach on this account. She could not employ prophylactic methods against malaria and yellow fever because they had not yet been discovered.

Consequences for the Activity of the Works of the Suppression of Yellow Fever.—The Americans have been enormously favoured by this scientific conquest. It behoves us to congratulate them on this account because it has greatly accelerated their work. It has made possible the employment of white labour, a thing which formerly was a material impossibility. The improvement of sanitary conditions and the lessened risk of death for the blacks has enlarged the capacity of recruitment. It has been possible thus to more than double the quantity of labour and consequently the quantity of excavation made per month. But the amount of excavation made per head has not been increased. It has remained the same under the new healthy conditions as it was in the midst of terrible difficulties caused formerly by yellow and malarial fevers.

This shows with what energy and science the struggle was carried on by the old company. Far from giving occasion for any reproach, the question of fever shows that science and ability were displayed on a par with courage and energy in those remote days.

APPENDIX B

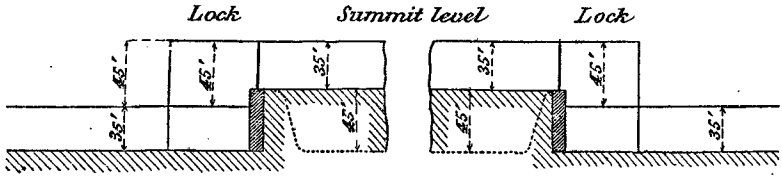
METHOD FOR LOWERING THE WATER-LEVEL IN A LOCK-CANAL WITHOUT TROUBLING NAVIGATION

WHAT will be the effect on a lock of lowering the level above it ?

With the usual construction of the locks, such lowering would be materially impossible.

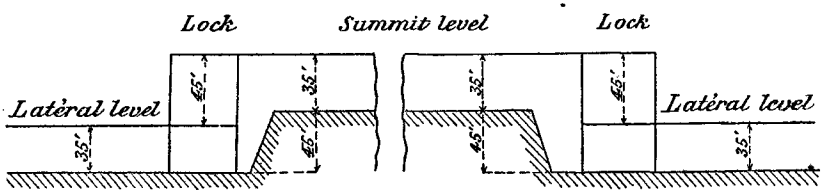
Here is the very simple solution I gave some twenty-five years ago to this problem.

Let us take into consideration the summit level of a canal and the locks at its respective ends. The height of the downstream gates of



each lock will be equal to the depth of the canal *plus* the fall between the summit level and the next one with which it is connected by the lock. The height of the up-stream gate of the same lock will be equal to the depth of the canal only.

It is obvious that with such a lock no lowering of the level of the water above the lock is possible without stopping navigation and without dredging in any case down to a depth equal to the depth of the



canal, *plus* the fall of the lock. In the example shown by the sketch the dredging would have to reach the excessive depth of 80 ft.

But if the up-stream gate is made of the same height as the down-stream gate and if the bottom of the summit level is dug at the altitude of the bottom of the inferior adjoining Canal level on a distance of 200 to 300 yards all difficulty vanishes.

One may deepen three feet, for instance, by dredging the summit

level without touching the lock and without troubling the navigation, if half the width of the summit level is reserved for the works and the rest for navigation. As in the case of the transformation the final bottom width would be 500 ft., there will always remain during the dredging works a minimum width of 250 ft. unhampered for the circulation of shipping.

This deepening of three feet once made, the depth of the canal in the summit level is, therefore, brought beyond the standard dimension. The level of the water can be lowered by three feet without hampering in the least the operation of the locks or the circulation of ships.

The two same successive operations, dredging the bottom and lowering the water level can be repeated until the water surface in the summit level is brought down to the altitude of the water surface in the adjoining level.

At this moment the lock gates can be removed and the new summit level is formed of the old summit level and of the two adjoining ones.

The masonry of the locks will simply form masses of artificial rock which will be removed like any other mass of rock on the side of the Canal.

If the locks, instead of being single as in the example given, are disposed in a flight of two locks, dispositions may be adopted, according to the principle just shown, which make easy their elimination without troubling navigation for one minute.

The whole difficulty of transforming a lock canal into a sea-level canal without hampering navigation, is entirely solved by the method explained above.

I formulated it in 1887 for the benefit of the old Panama company.

APPENDIX C

Extract from the Pamphlet published in Spanish on the 28th of November, 1905, in Panama, by Don José Agustin Arango, former President of the Provisional Government of Panama,

Entitled

Data for the History of the Independence of the Isthmus proclaimed on the 3rd of November, 1903, by José Agustin Arango.

I (extract)

I WAS Senator for the Department of Panama to the National Congress of 1903, to which I declined to go because I was completely convinced that the Hay-Herran Treaty for the opening of the Canal would be rejected, and because I saw but one way to save the Isthmus from the ruin to which it was condemned, namely, the secession from Colombia.

VIII (extract)

It was understood that Don Ricardo Arias would accompany Dr. Manuel Amador Guerrero in the trip which he was to undertake to the United States. . . .

The mission which Amador had to fulfil met at the outset no difficulty whatever, because he at first began to have interviews with the *respetable persona* who, through Captain Beers, had opened the way to our hopes and had thus led us to send a representative of the *Junta*, so that the first news which reached us from Amador was very satisfactory. But after that there happened an unfortunate incident which for a moment discouraged Amador, who, for this reason sent us the cablegram "Disappointed," and after several fruitless endeavours informed us of his prompt return to the Isthmus. We stopped him and requested that he should stay there (in the United States) and send us details. . . .

NOTE BY THE AUTHOR.—In this document, published on the 28th of November, 1905, Señor Arango does not wish to mention explicitly

the name of the person to whom Amador had been sent. He designates him by the words "respetable persona." But in the confidential letter which follows, Señor Arango had on the 14th of September, 1903, no reason to withhold the name of the "respetable persona." He writes it in full.

Translation into English of the Confidential Letter written by Señor J. A. Arango to Dr. Manuel Amador, which was published in original text in the Committee Document of the House of Representatives at Washington, entitled: "The Story of Panama" (Hearings on the Rainey Resolution before the Committee on Foreign Affairs of the House of Representatives—February 15, 16 and 20, 1912). The translation here below reproduced is from same document.

"MY DEAR FRIEND,

"As to-morrow, Tuesday, the *Segurança* should arrive at Colon, I trust that during the day we shall receive your expected letter, which will give us the explanation of your discouraging cablegram, 'Disappointed; await letters.' Since then we have received the cable saying 'Hope,' and nothing more, so that we are in a position of fearful expectancy, as we are ignorant of what has happened to you over there and of the reasons for the profound silence which Mr. Cromwell maintains.

"Tired of so much incertitude, we decided to send the following cables to that gentleman. They are as yet unanswered, but we trust he will give attention and reply thereto within two or three days:

"On September 10, in cipher:

"'*Confidential. Regret Captain Beers's letters and cables are not replied. Opportunity now excellent to secure success provided United States promptly recognises our independence under conditions with our agent there, who is fully authorised to contract for us. Should Congress*[1] *concede contract, although improbable, will be through fear of our attitude. Congress controlled by enemies of contract. Answer by wire in cipher through Beers. Tell our agent that to use all caution possible must send his cables through Beers: not to use Brandon again.*—ARANGO.'

"On the 12th of September, also in cipher:

"'*Our position being critical, we must have immediate answer to act promptly or abandon business.*'

"The recommendation made to you in the first cable set out above, not to use Brandon, is because your cable, 'Disappointed,' was made

[1] Señor Arango means here by the words *Congress concede contract* the approval of the Hay-Herran Treaty by the Colombian Congress, then in session.

quasi-public, and I suspect that the other one also has been known to several persons, which doubtless comes from the cable having been known to young Brandon and by him communicated to Gustave Leeman, who must have divulged it; but, be that as it may, it is better for you to communicate through Captain Beers even when using Arias's or Boyd's cipher.

" You already know of the change of Governor; and this afternoon there arrived in Colon General Baron [Varon] bringing news that Obaldia and Sarria are already in Barranquilla with fifteen officers and officials, which is explained by the fact that as Sarria is on bad terms with Huertas he has asked to be allowed to bring fresh officials, which is a *contretemps* for us, even if everything can be arranged. Anyhow, we shall see if " they burn our bread in the door of the oven."

" The opportunity which is being lost is a brilliant one. Here the whole country will rise as one man. Since you left, the desire for independence with a protectorate has greatly increased. Every one in town and country ask for it openly. It would be a pity to lose this brilliant opportunity.

" I suppose that Maria and your son Manuel will give you general news, therefore I have only referred to urgent matters which are incumbent upon me.

" Against my custom, I am writing this in plain language and without reserve confident that you will tear up this letter as soon as you have read it and taken note of its contents.

" I can think of nothing more to say and take leave, wishing that our efforts may not be fruitless.

" Your unswerving friend,

" J. A. ARANGO."

GENERAL NOTICE.—*The italics or other special types used in the documents reproduced, as well as the explanatory words placed between parentheses, in said documents, are the Author's.*

ERRATA

Page 64, line 6 from bottom, *read* 1st *instead of* 5th.
Page 65, line 10, *read* Rio Grande *instead of* Chagres.
Page 218, last line but one, *read* 1903 *instead of* 1902.
Page 239, line 22, *read* fifteen *instead of* seventeen.
Page 315, line 12, *read* Tuesday the 13th *instead* of Thursday the 15th.
Page 316, line 28, *read* Thursday *instead of* Tuesday.
Page 333, line 25, *read* on the morrow of the following day the (in sub-title) *instead of* on the morrow the.
Page 333, line 27, *read* on the morrow of the following day *instead of* on the following day.
Page 338, line 6 from bottom, *read* possible. He said : *instead of* possible.
Page 373, line 30, *read* equality of tolls *instead of* equality of toils.

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